

1 of 51

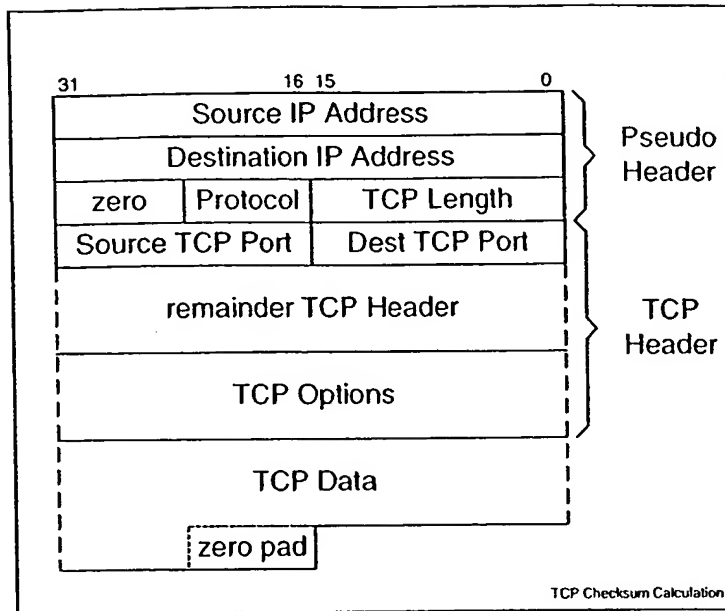


Figure 1A (PRIOR ART)

20651

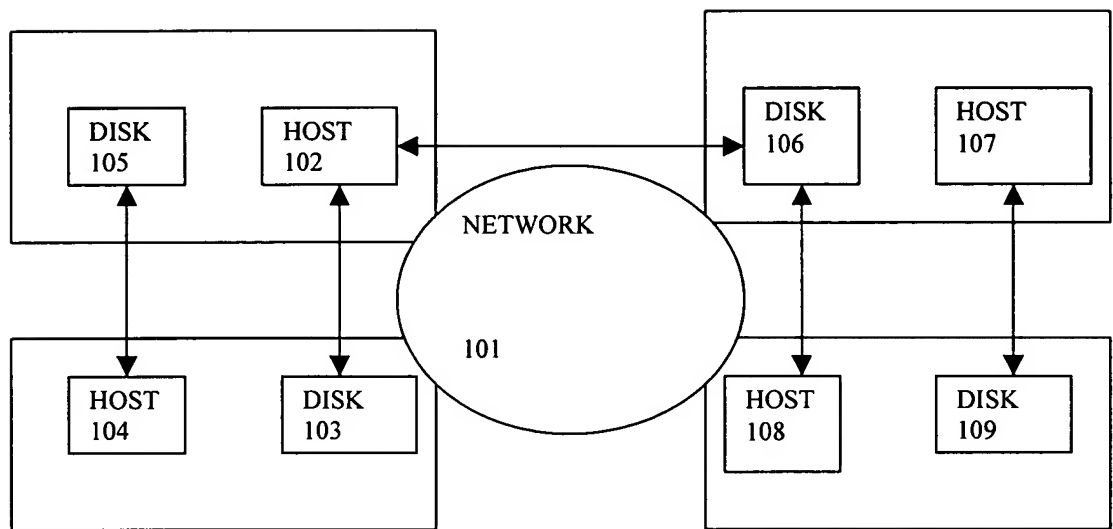
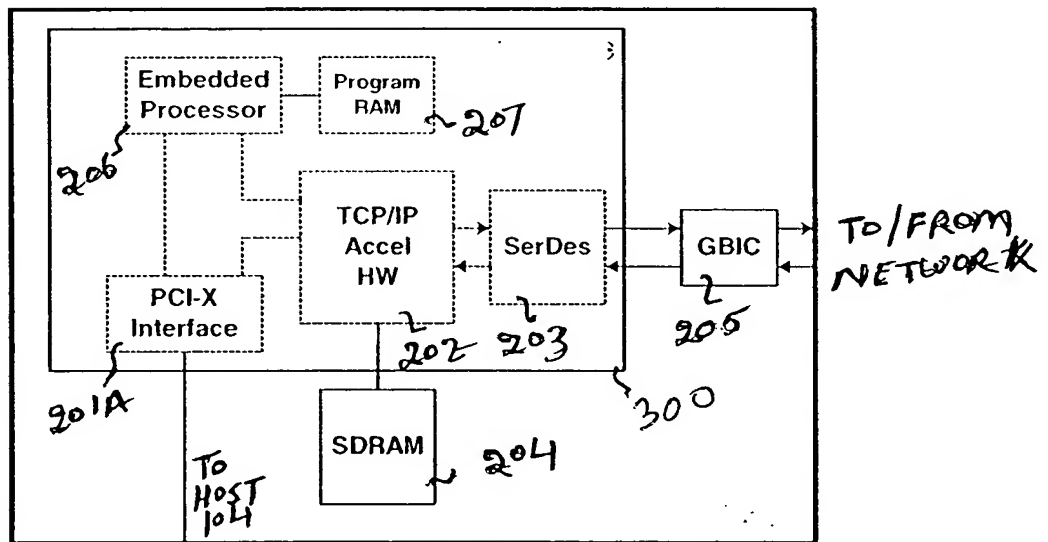
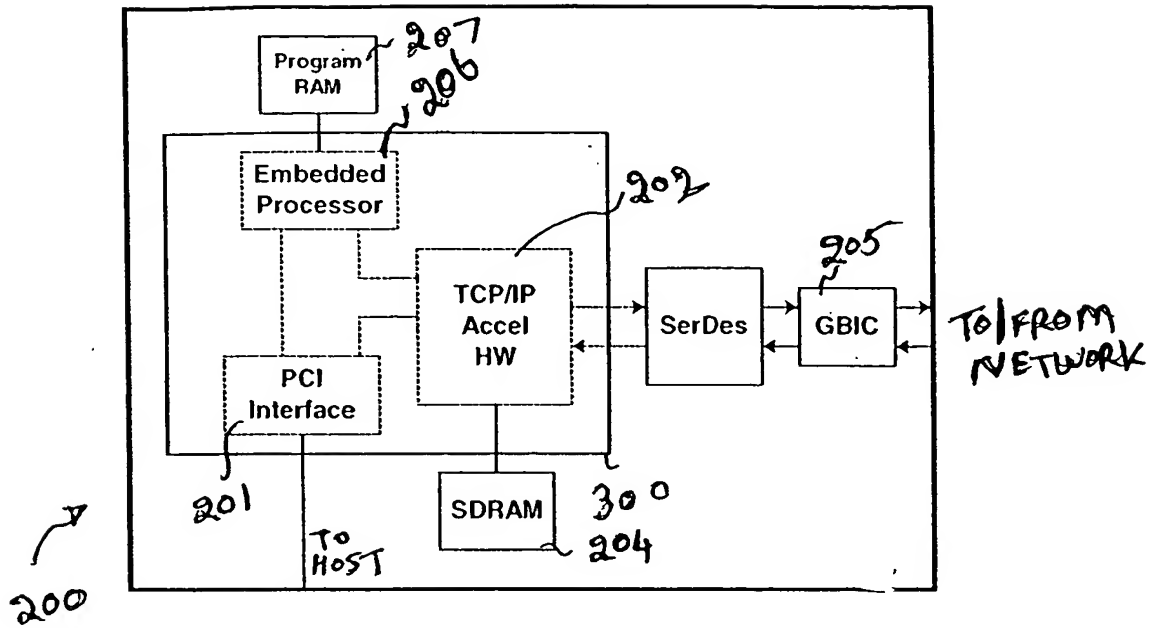


FIGURE 2A



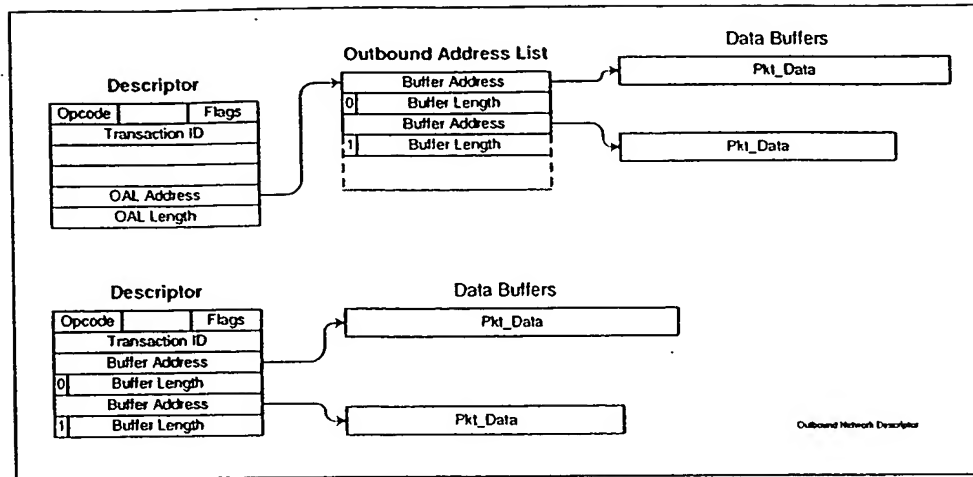


Figure 3A-1 Network IOCB Example

To Host 104

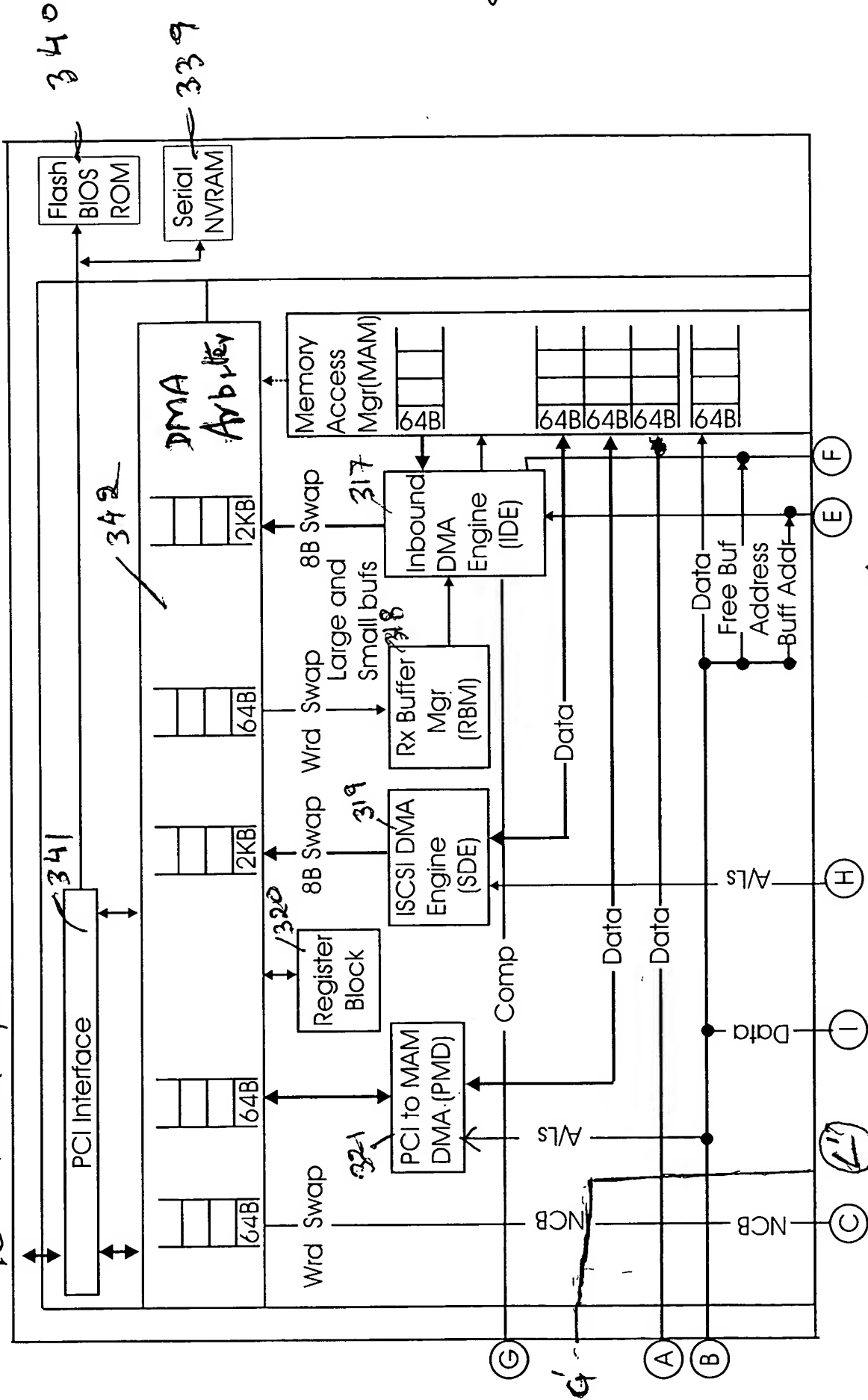
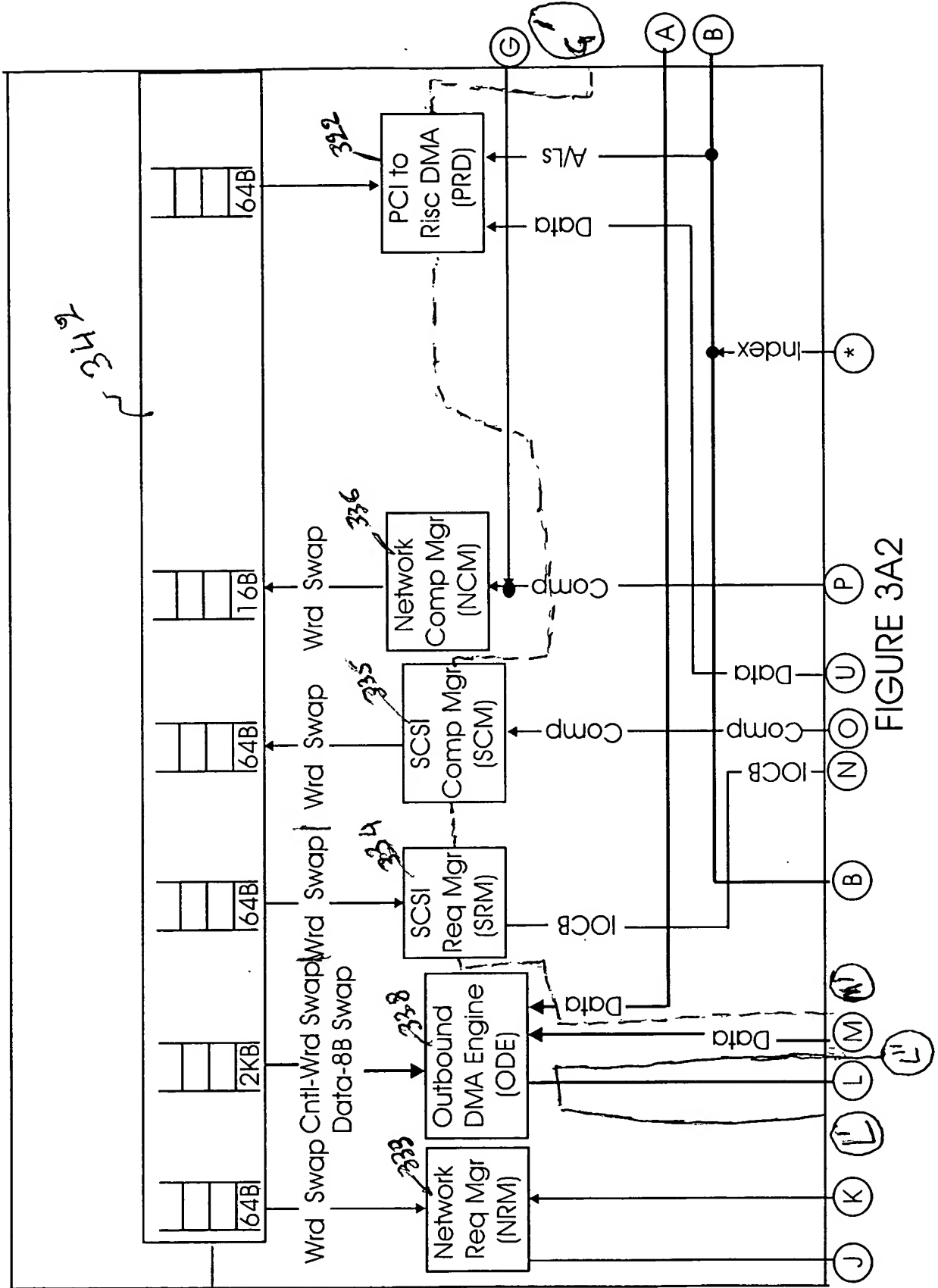


FIGURE 3A1-1



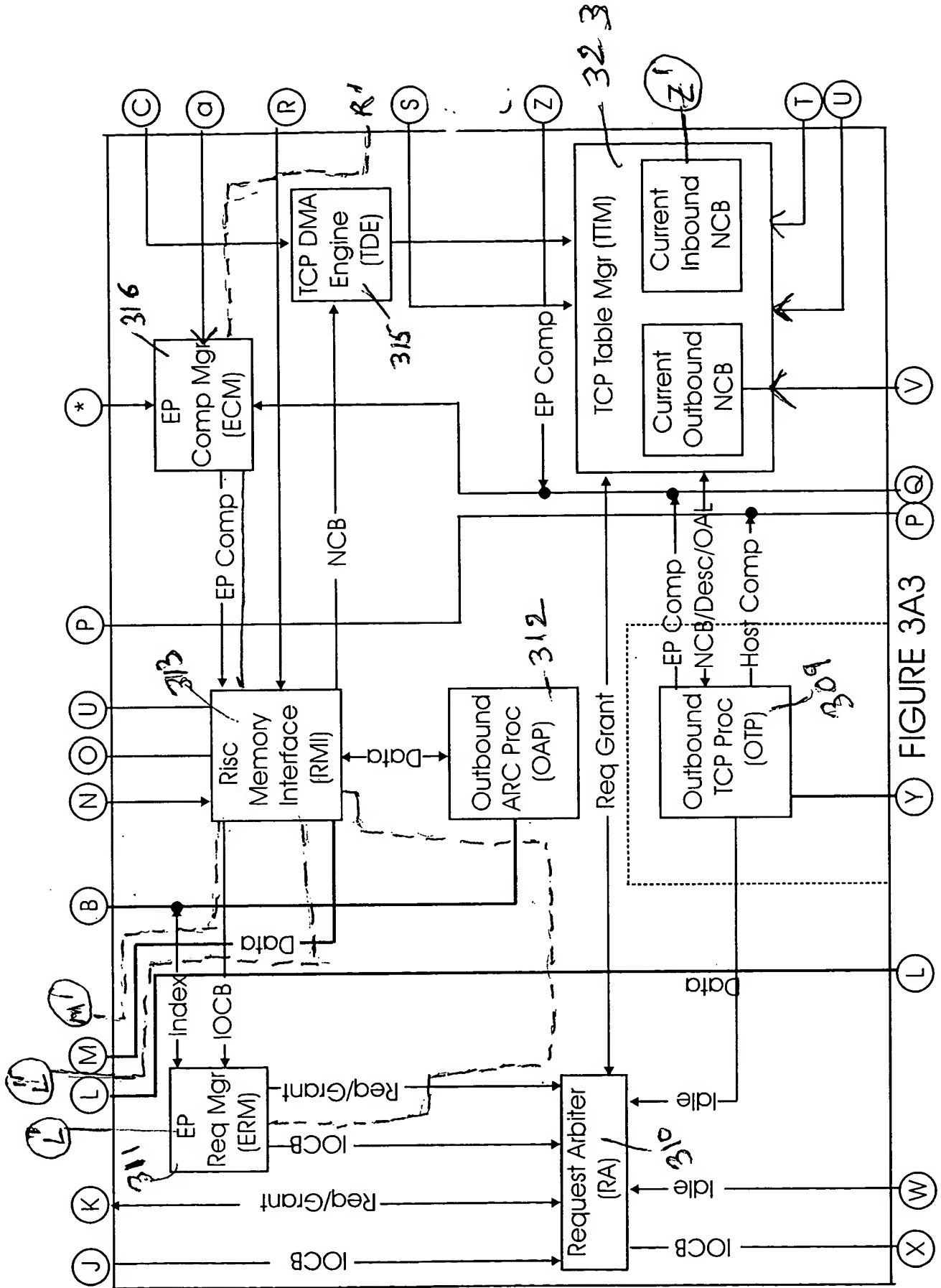


FIGURE 3A3

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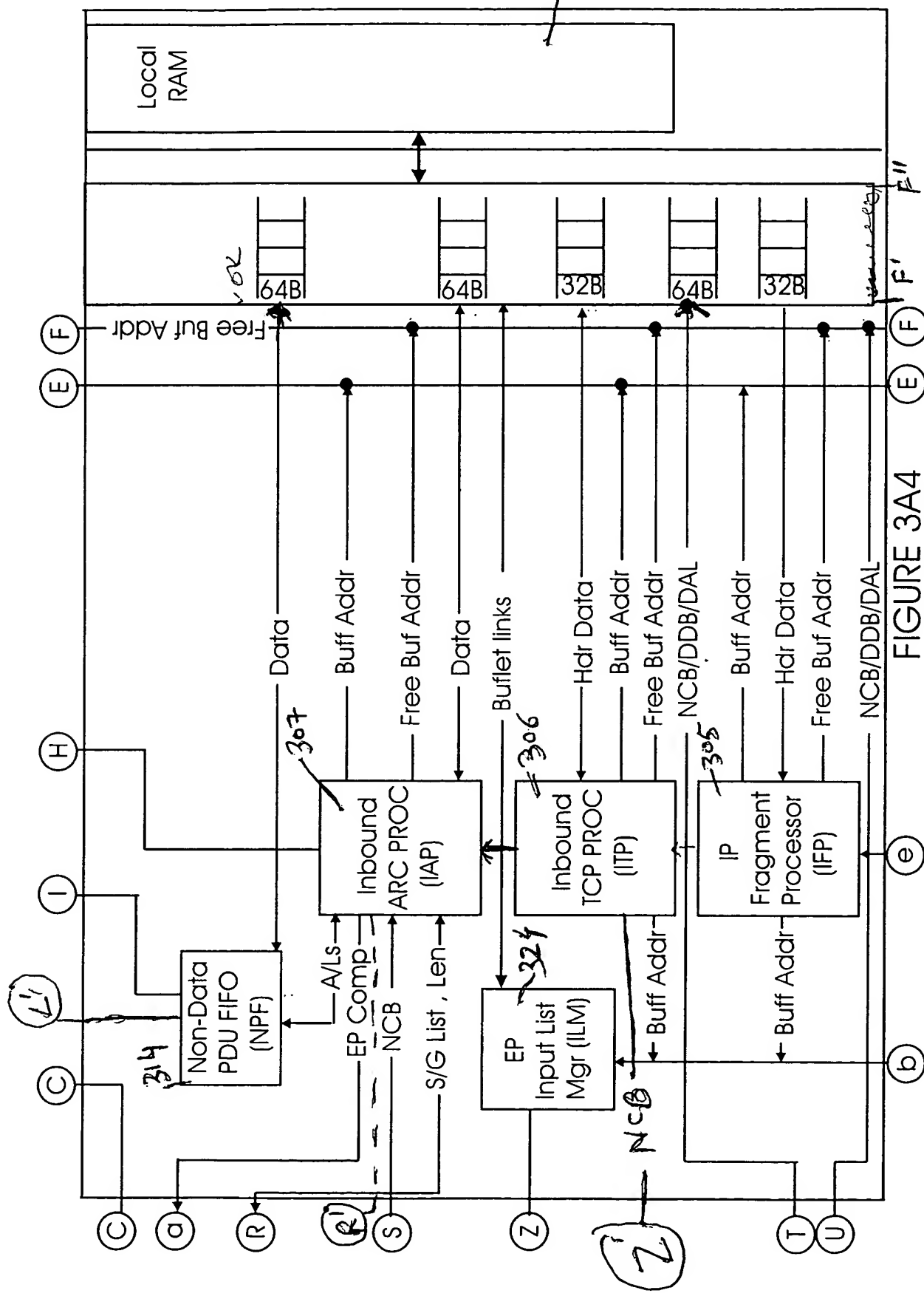
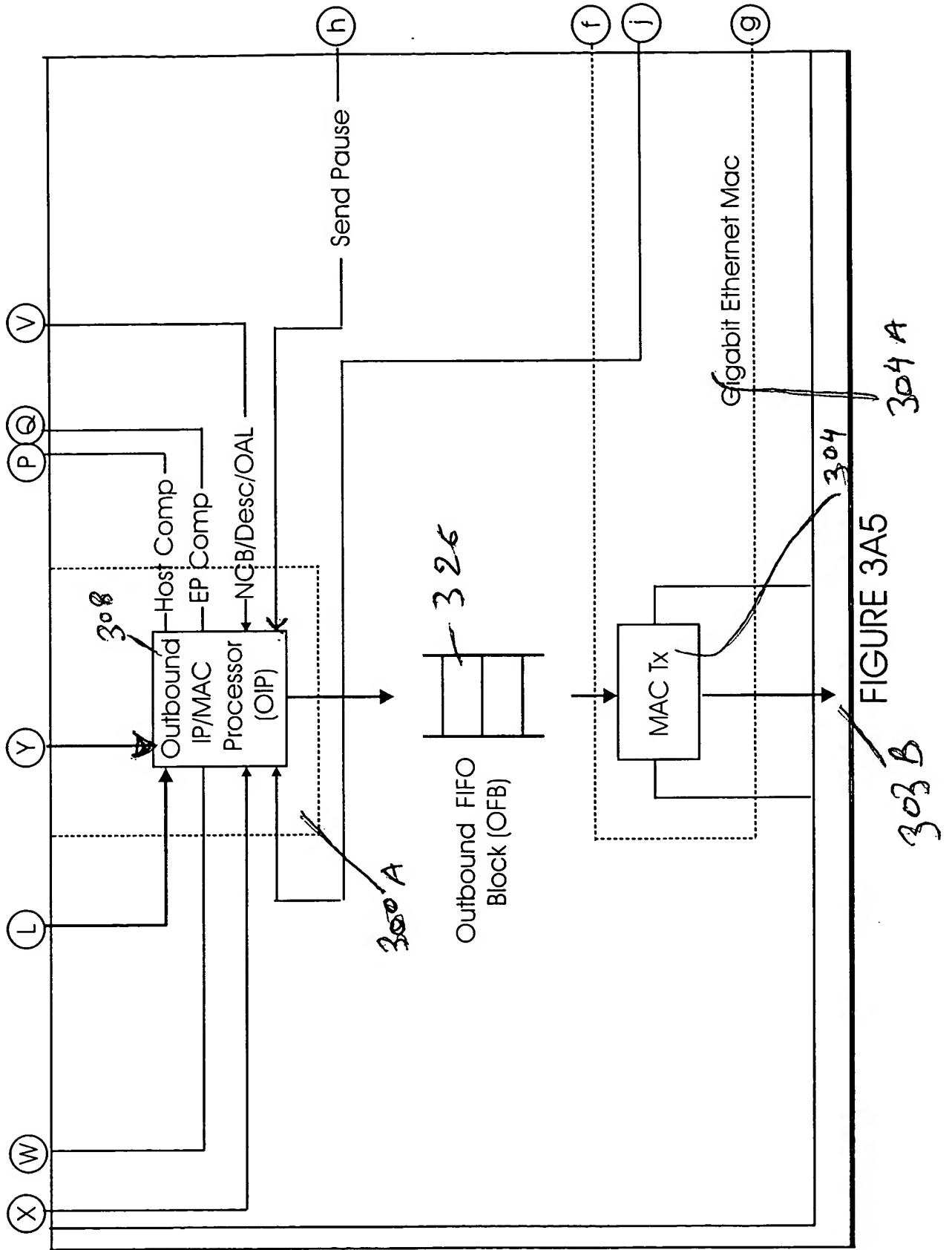


FIGURE 3A4



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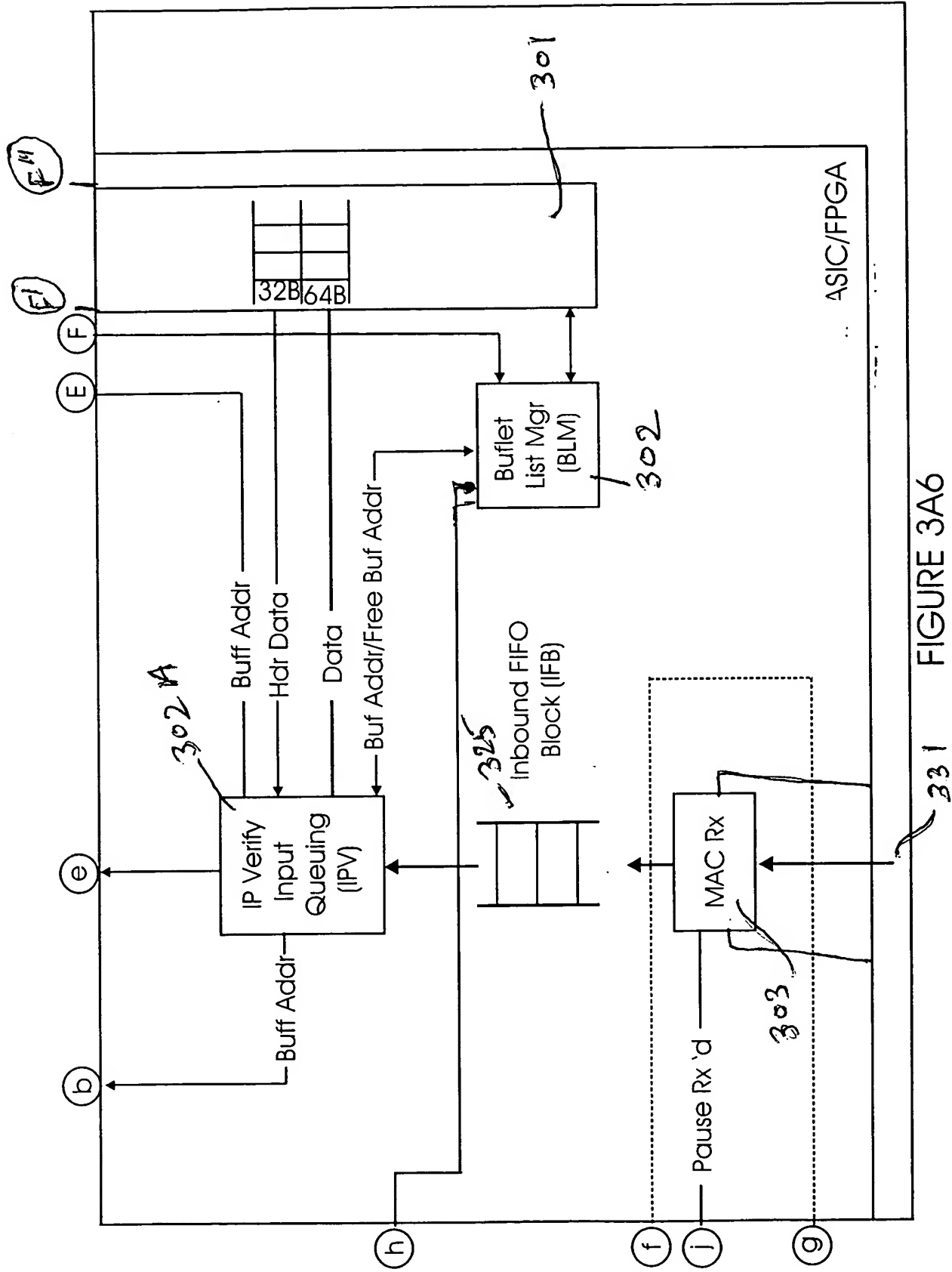


FIGURE 3A6

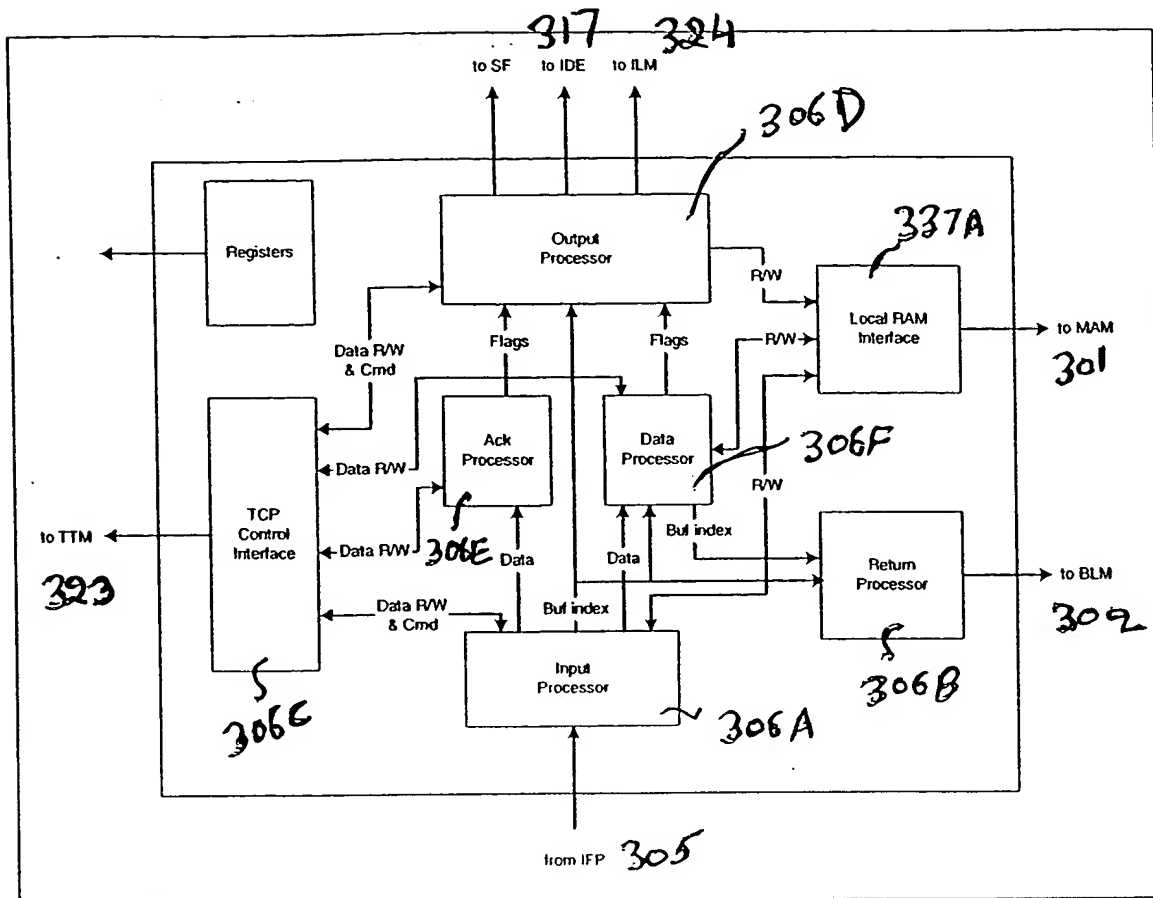


Figure 3B -

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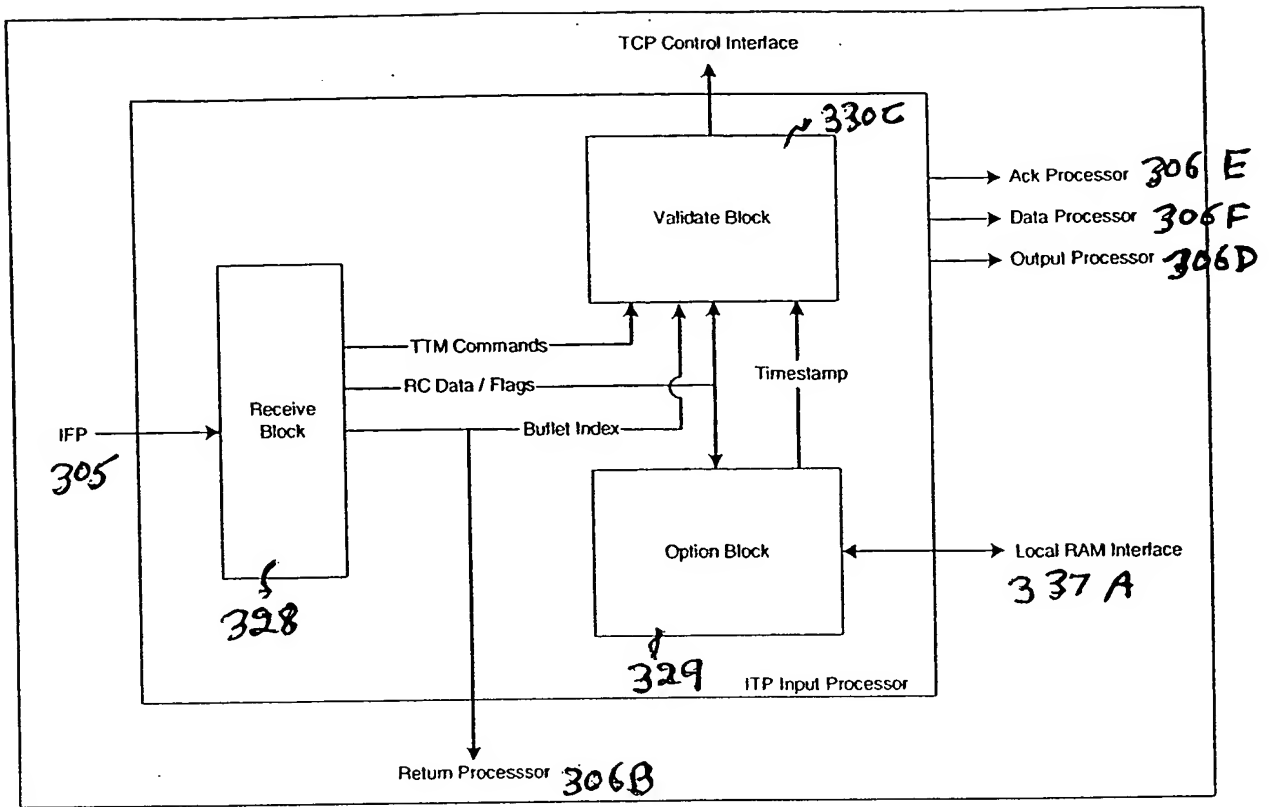


Figure 3C - ITP Input Processor

306A

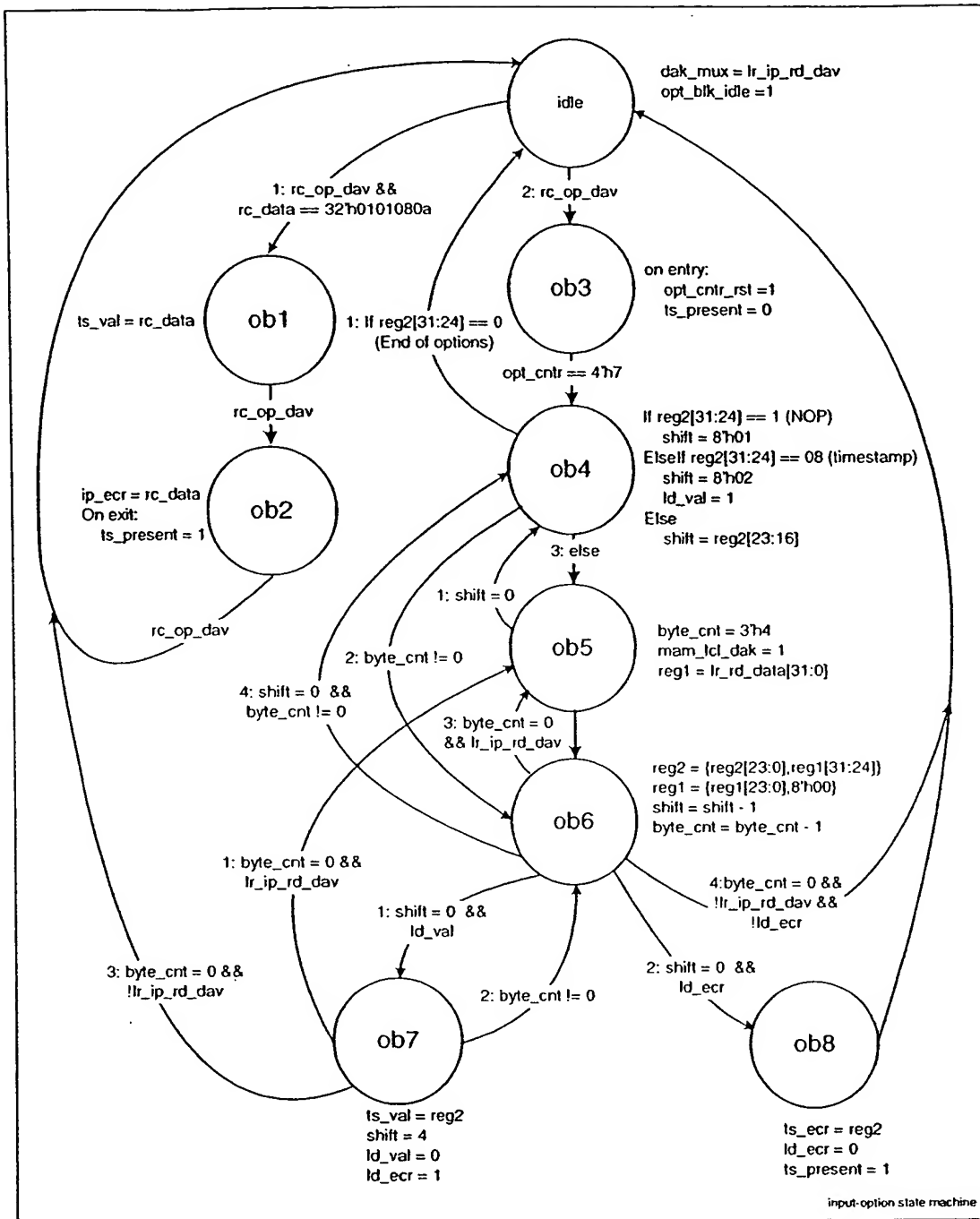


Figure 3C1 Input Processor Option Block State Machine

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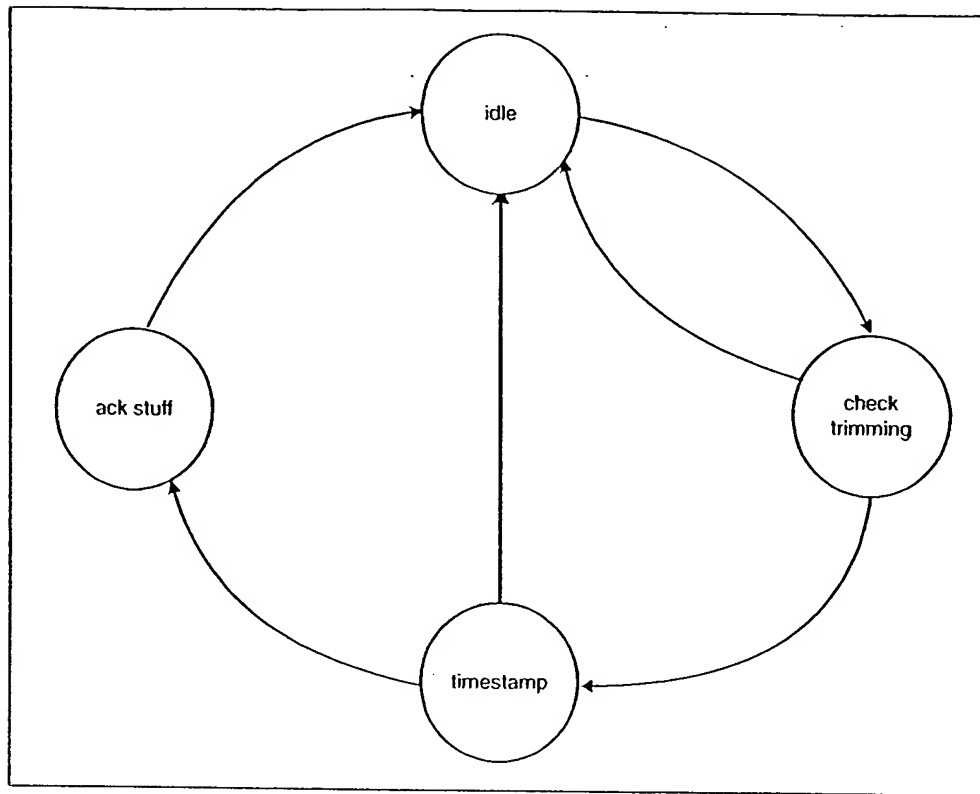


Figure 3C2: Validation State Machine

```

graph TD
    idle((idle)) -- "2: ncb_check && tc_ip_cmd_done && rst" --> vm1((vm1))
    idle -- "3: ncb_check && tc_ip_cmd_done" --> vm5((vm5))
    idle -- "1: !rm_ip_ncb_error || (ncb_check && tc_ip_cmd_done && sym)" --> vm11((vm11))
    vm1 -- "ip_tc_rql = 1  
rst_ncb_check = 1" --> vm2((vm2))
    vm2 -- "ip_tc_rql = 1  
tmp1 = read NCB[0]" --> vm3((vm3))
    vm3 -- "ip_tc_rql = 1  
write NCB[0] = (tmp1[31:4], 4th0)" --> vm4((vm4))
    vm4 -- "ip_op_start = 1" --> idle
    vm5 -- "tcp_state = read NCB[0][3:0]  
rm_scl = read NCB[0][30:28]  
rst_ncb_check = 1" --> vm6((vm6))
    vm6 -- "tmp2 = read NCB[T_RXTCUR]" --> vm7((vm7))
    vm7 -- "ip_tc_rql = 1  
val_alu = tmp2[7:0] + tcp_now" --> vm8((vm8))
    vm8 -- "ip_tc_rql = 1  
tmp1 = read NCB[IDLE_TMR]" --> vm9((vm9))
    vm9 -- "ip_tc_rql = 1  
write NCB[IDLE_TMR] = {1'b1, val_alu[14:0], tmp1[15:0]}" --> vm10((vm10))
    vm10 -- "ip_tc_cav = 1  
ip_tc_cmd = add NCB to timer list" --> check((check trimming))
    vm11 -- "ip_op_start = 1  
rst_ncb_check = 1" --> vm12((vm12))
    vm12 -- "no_comp_msg = 1  
vl_ip_start = 1  
ip_op_start = 1" --> idle
    vm12 -- "1: tc_ip_dav && tcp_state == 4th0 (closed)" --> vm13((vm13))
    vm13 -- "2: tc_ip_dav && tcp_state == 4th0 (time_wait)" --> vm14((vm14))
    vm14 -- "ip_tc_rql = 1  
tmp1 = read NCB[0]" --> vm15((vm15))
    vm15 -- "ip_tc_rql = 1  
write NCB[0] = tmp1 | SAN bit" --> vm16((vm16))
    vm16 -- "rststart_2msl = 1  
needoutput = 1  
ip_op_start = 1" --> idle
    vm6 -- "3: tc_ip_dav" --> vm7
    vm7 -- "tc_ip_gtl" --> vm8
    vm8 -- "tc_ip_dav" --> vm9
    vm9 -- "tc_ip_dak" --> vm10
    vm10 -- "tc_ip_cmd_done" --> check
    vm13 -- "tc_ip_gtl" --> vm14
    vm14 -- "tc_ip_dav" --> vm15
    vm15 -- "tc_ip_dak" --> vm16
  
```

Figure 3C3: Validation State Machine for Reset, SYN or Invalid State

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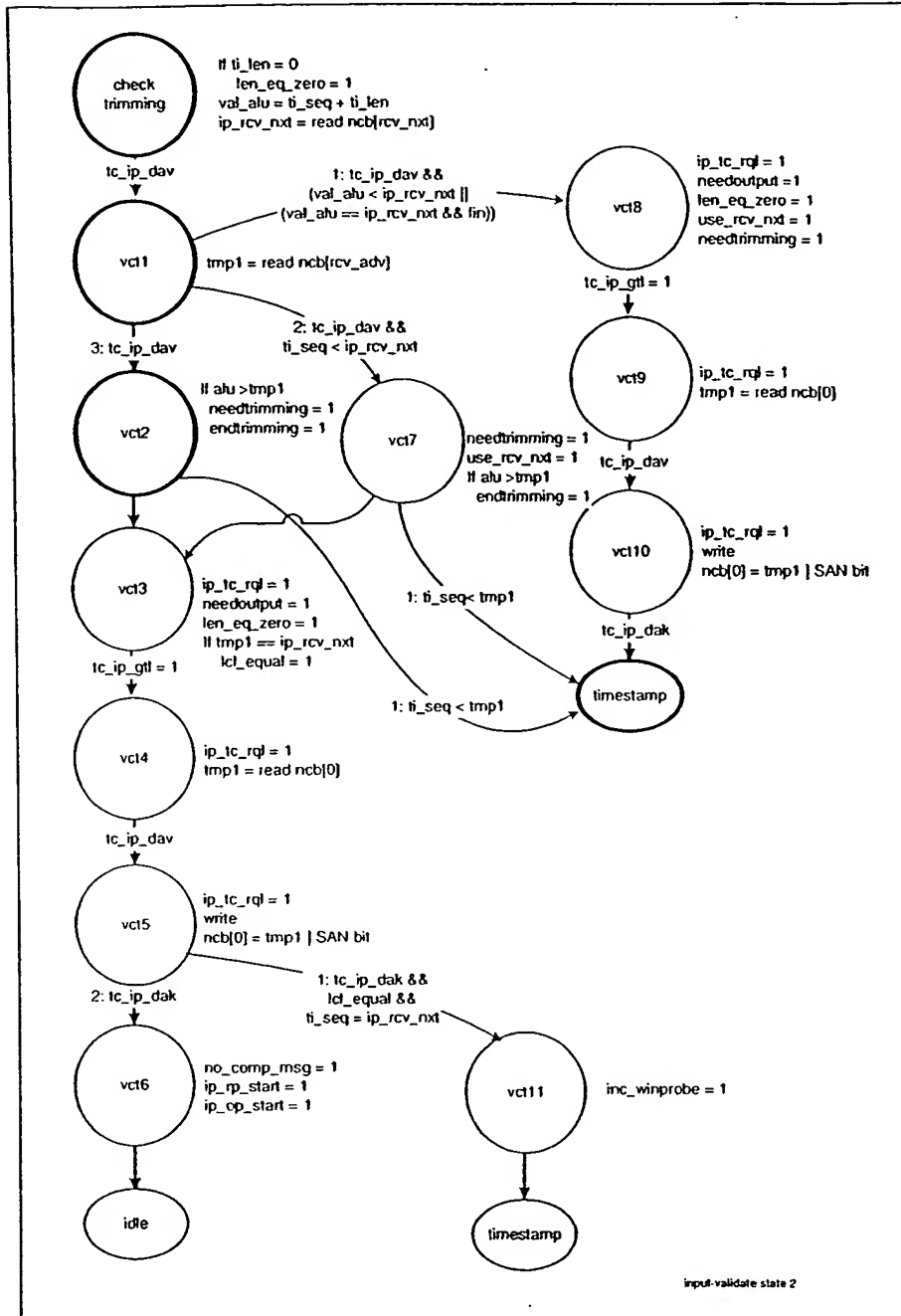


Figure 3C4: Validation State Machine for Trimming

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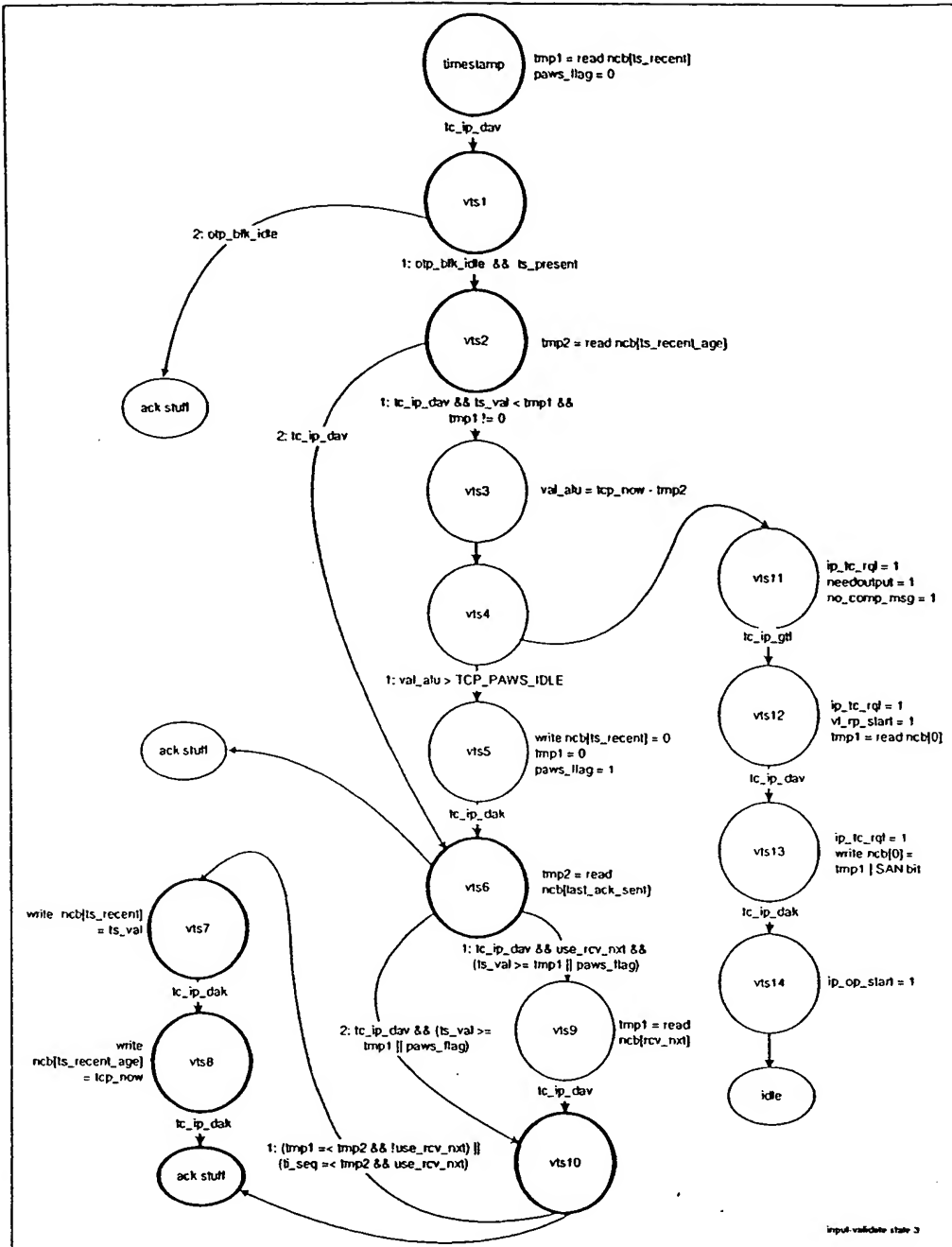


Figure 3C5: Validation State machine for Timestamp functionality

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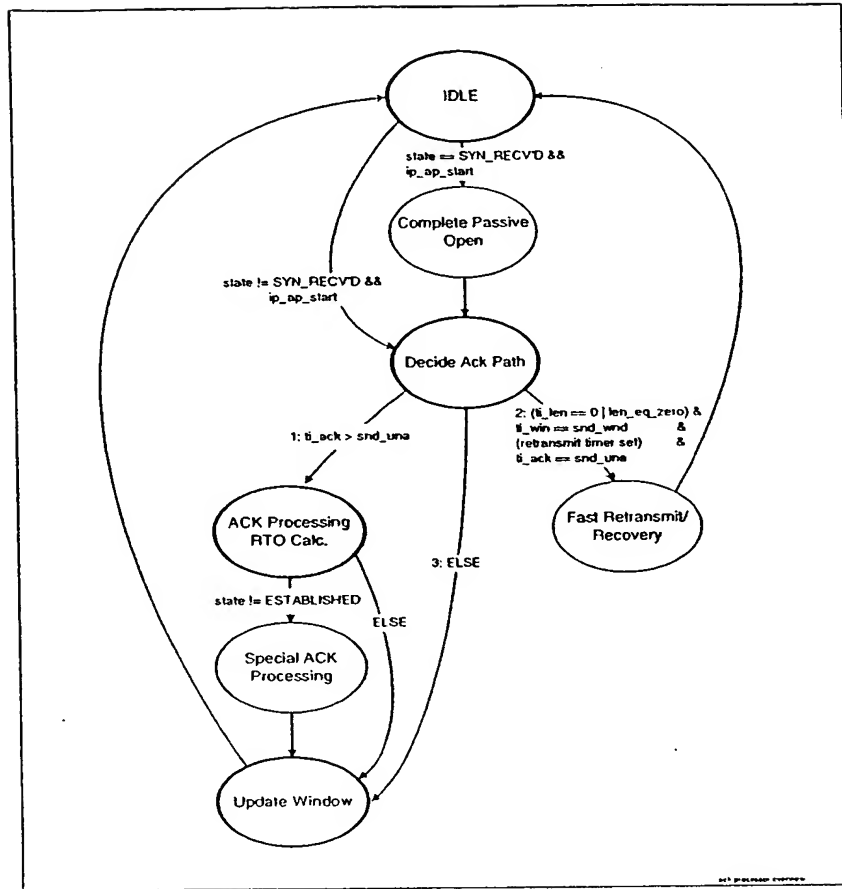


Figure3C6- ACK Processor

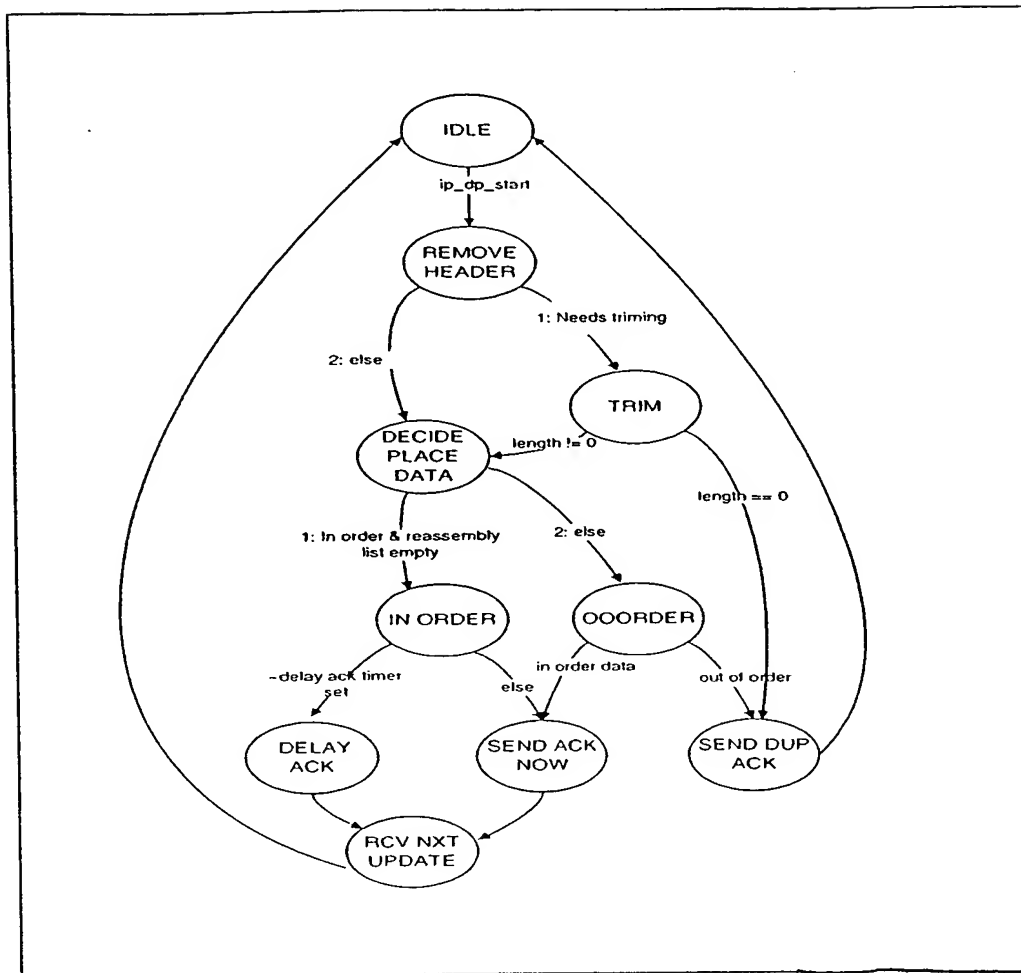


Figure 3C7 Data Processing State Machine

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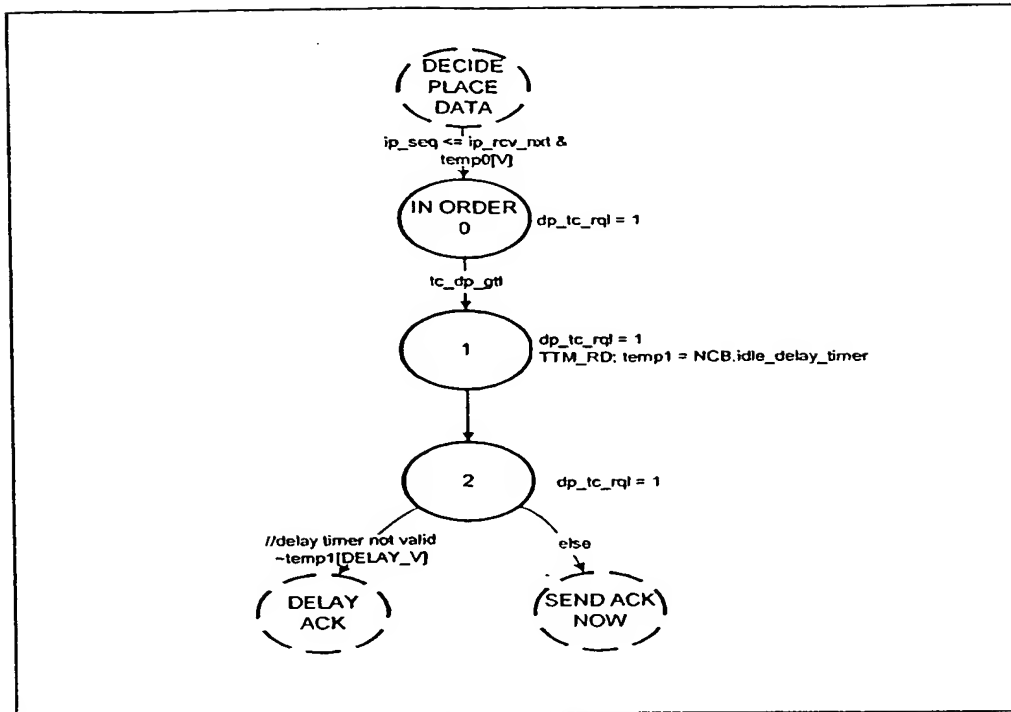


Figure 3C8 – Data Process Inorder

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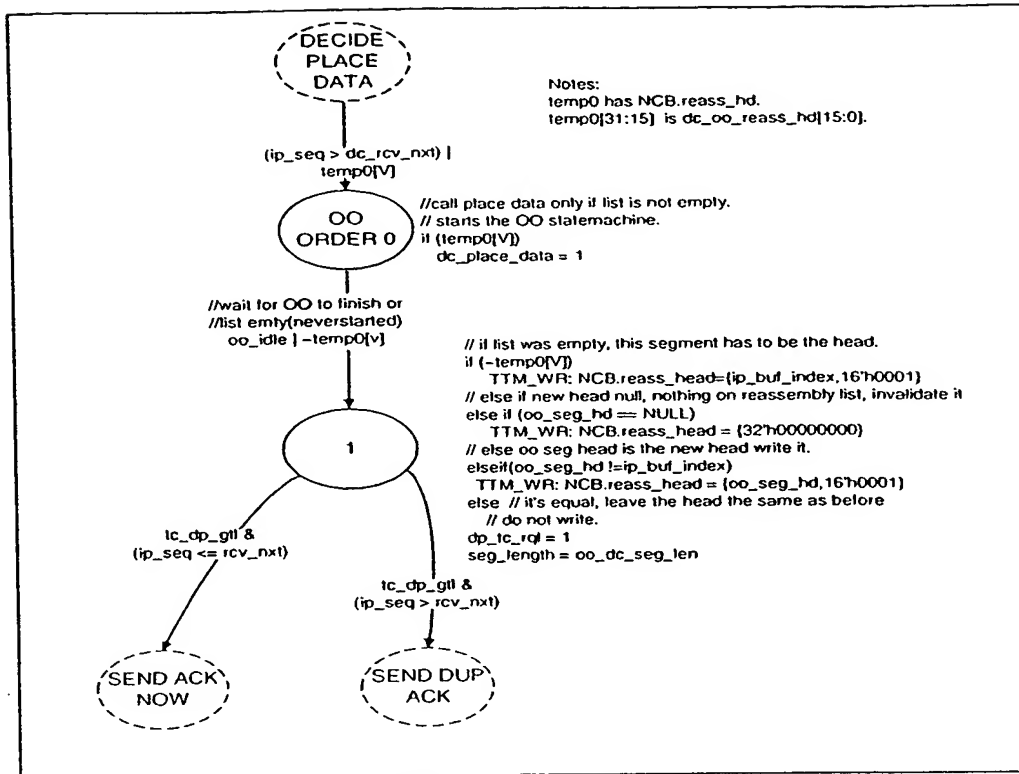


Figure 3C9 – Data Process Out of Order

220651

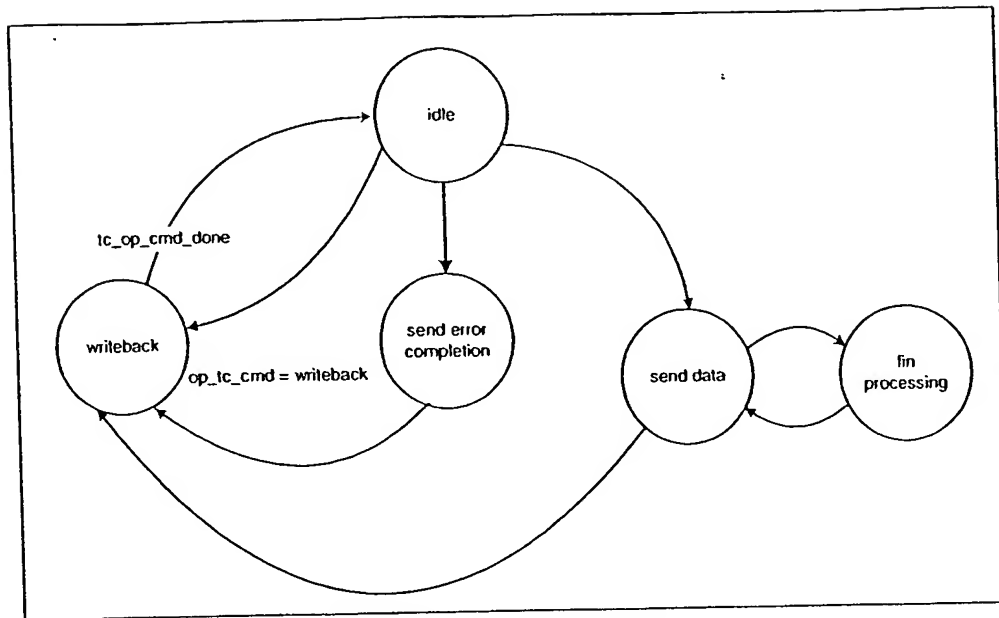


Figure 3C10 - ITP Output Processor

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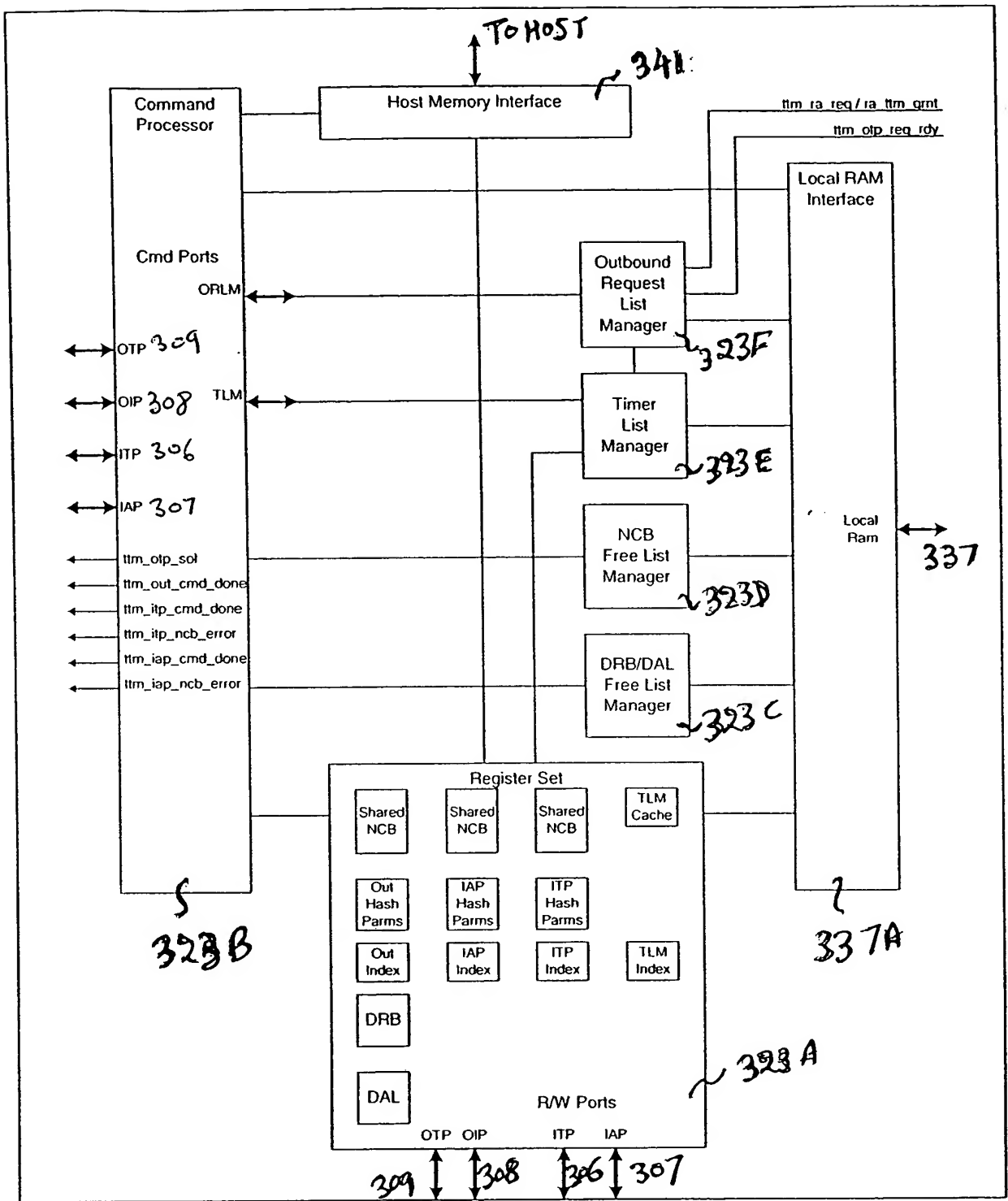


Figure 3D 1

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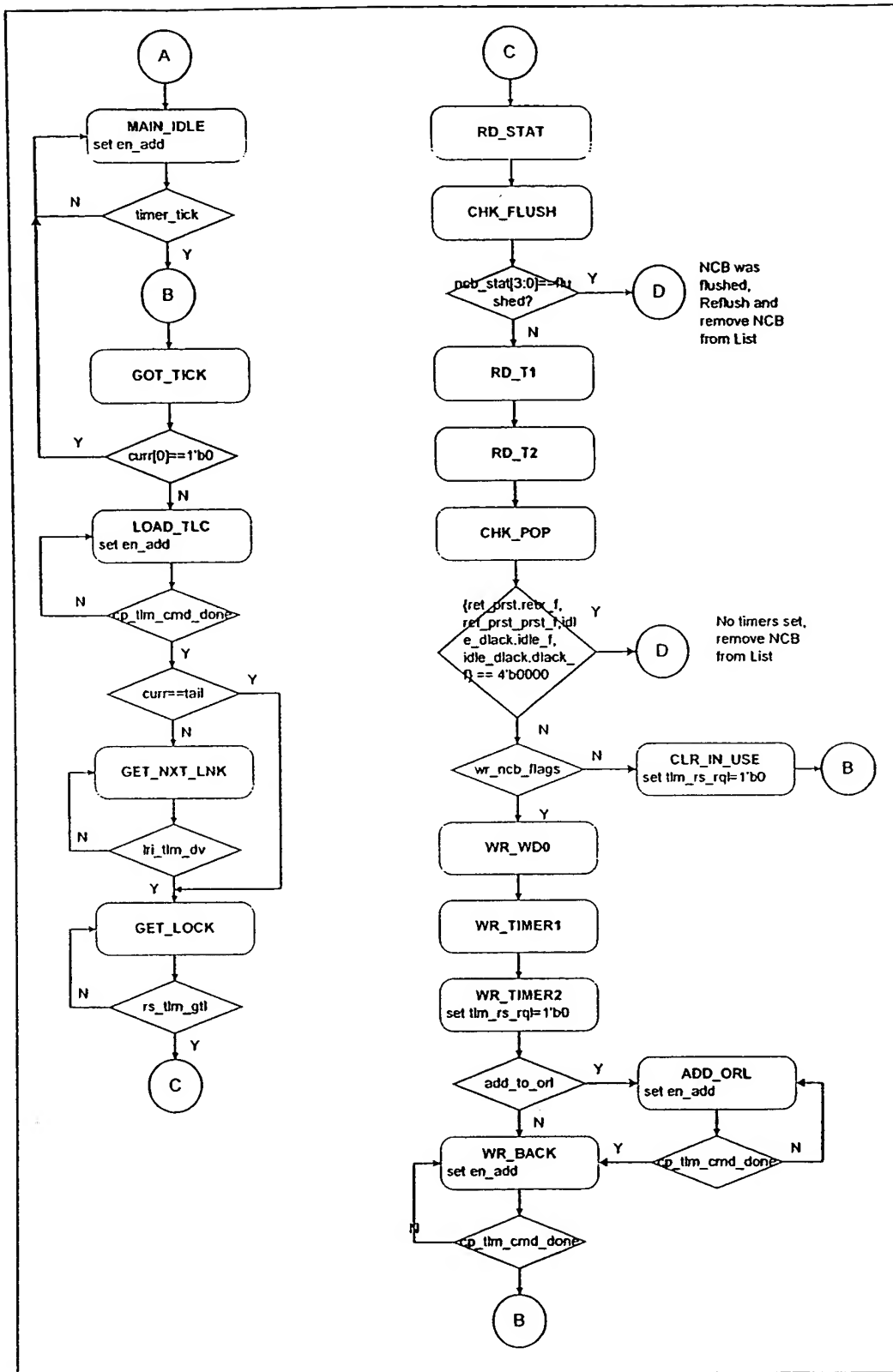


Figure 3D1 Timer List Manager State Machine

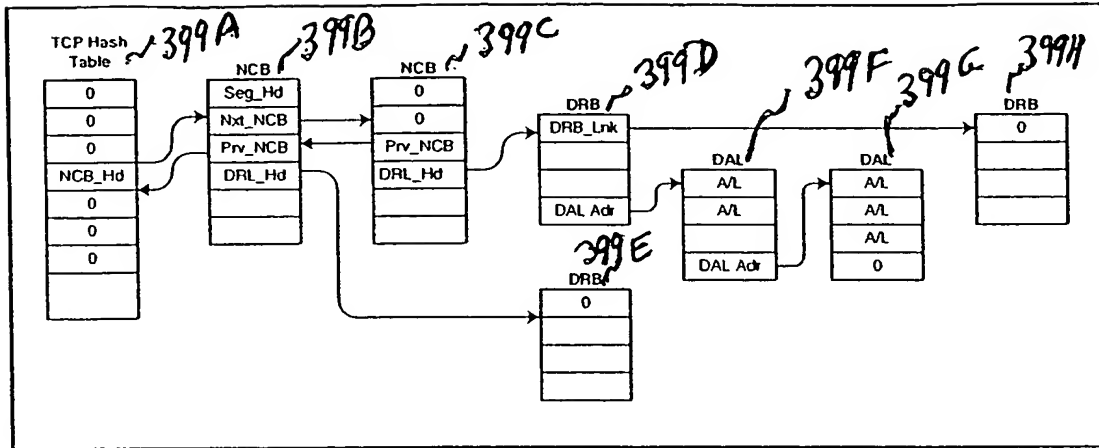


Figure 3E

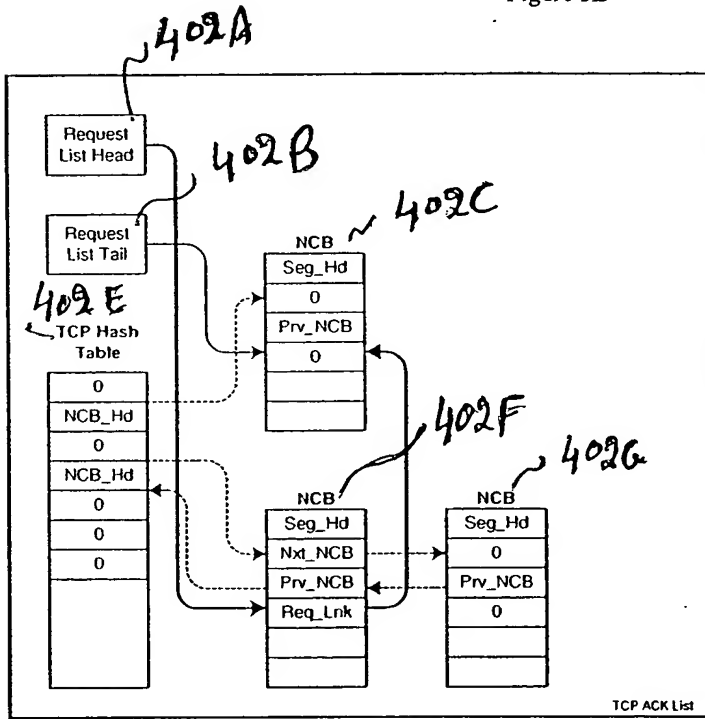


Figure 3F

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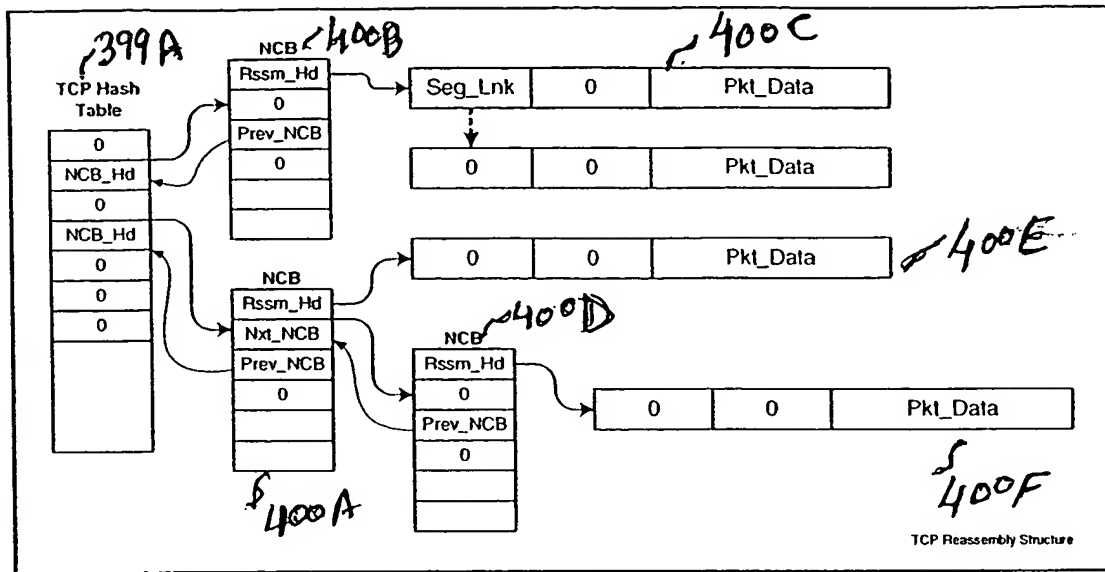


Figure 3G

400

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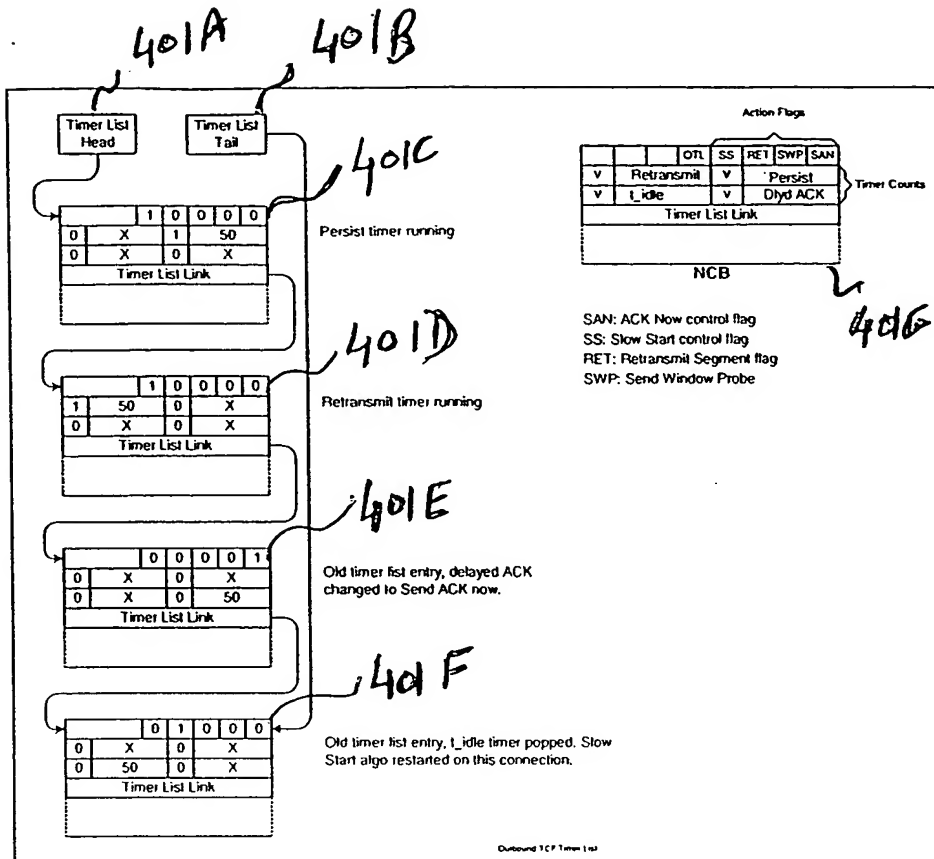


Figure 3H

401

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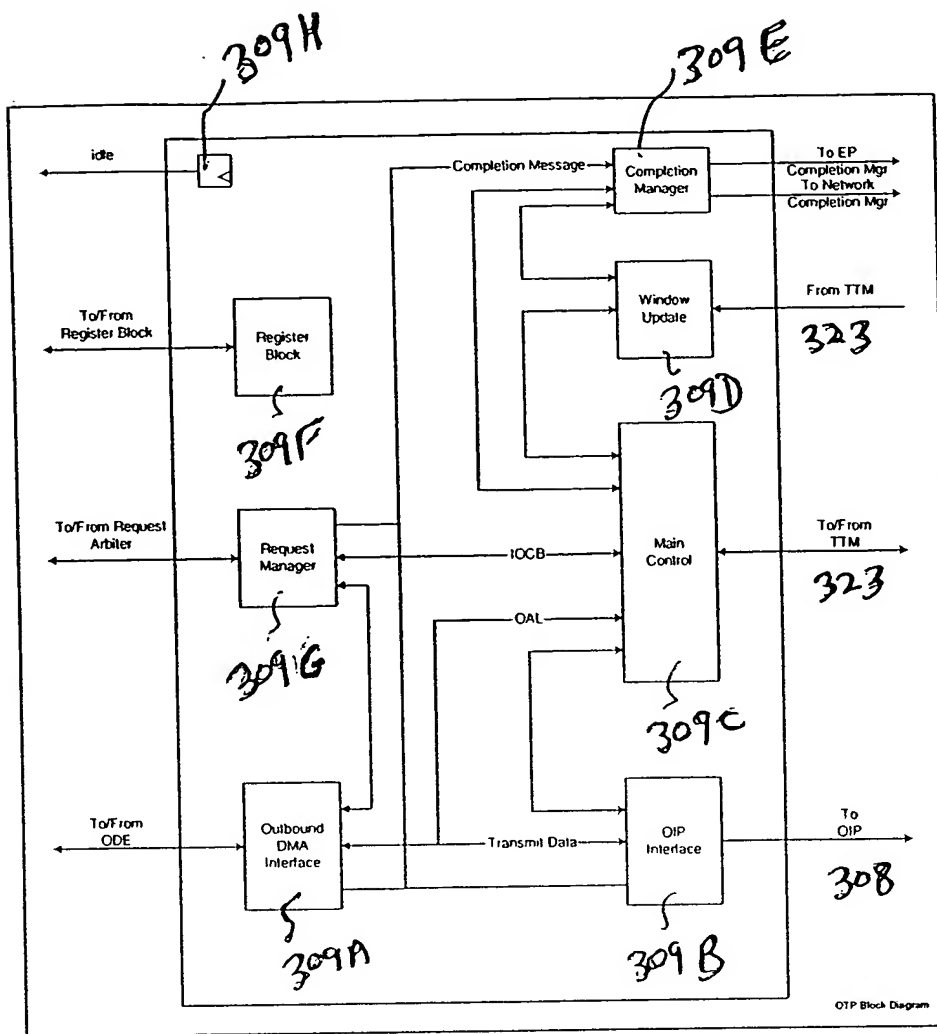


Figure 31

309

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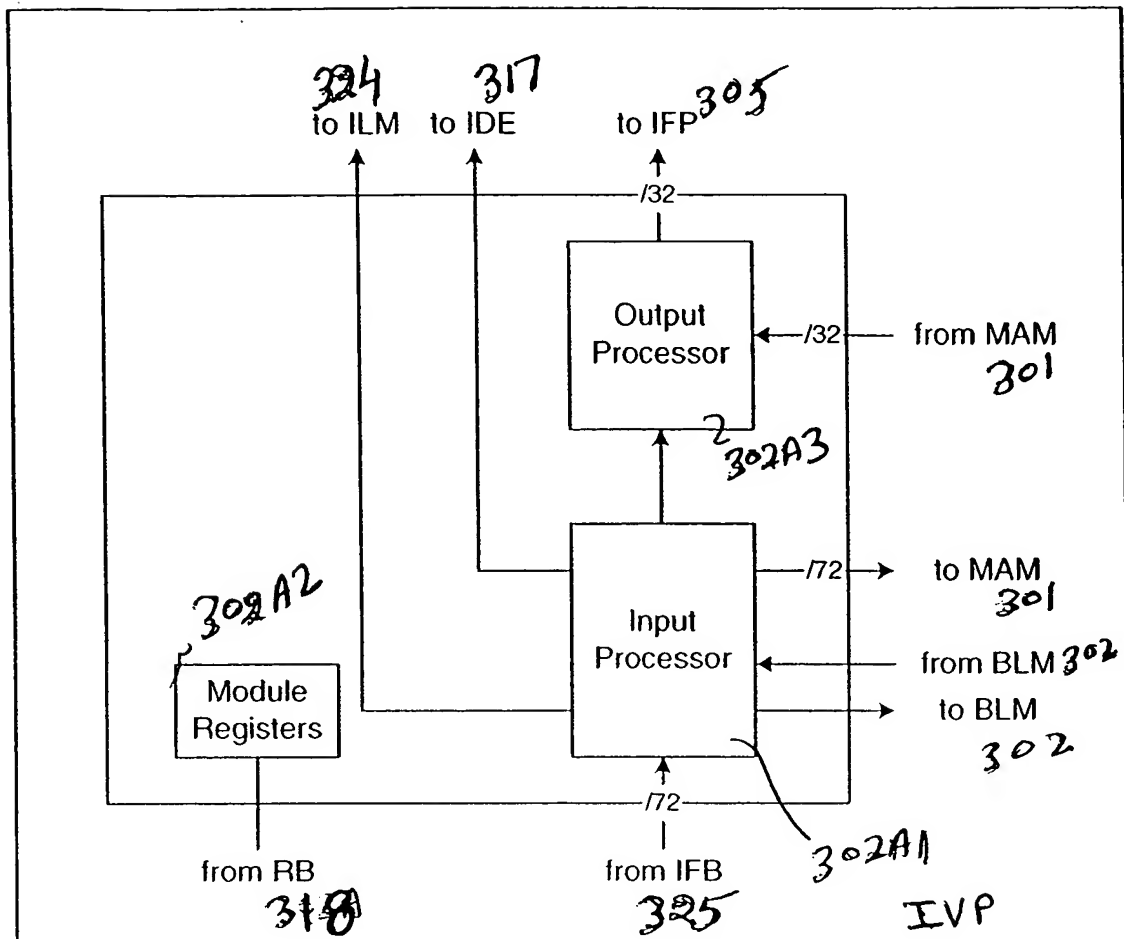


Figure 3J1

302A

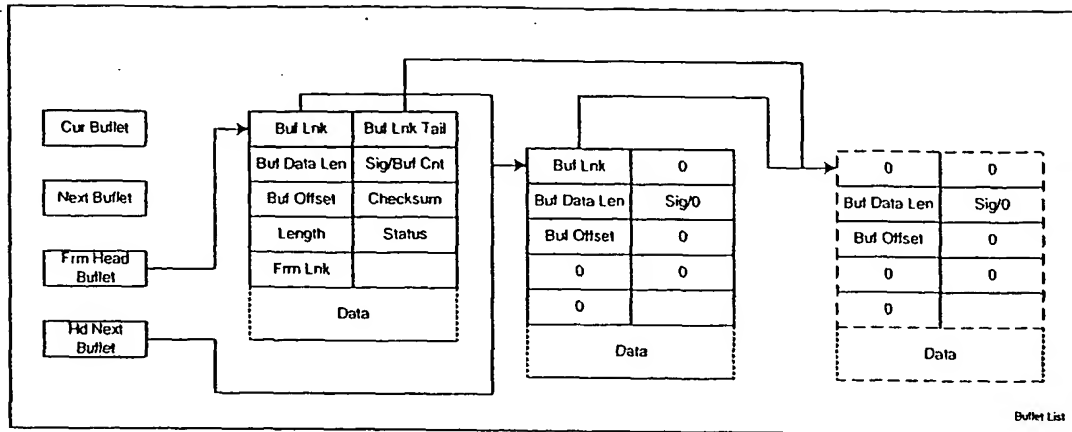


Figure 3J1 Buffet List Structure

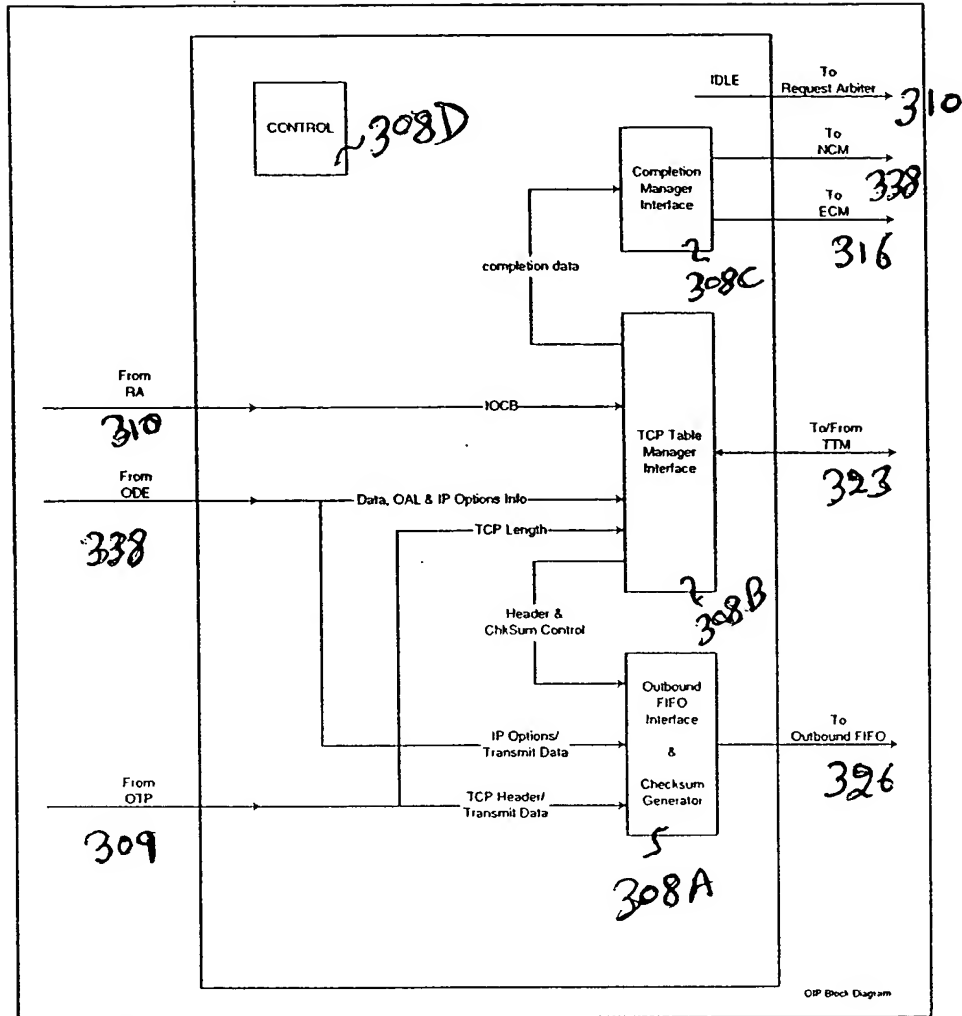


Figure 3K

308

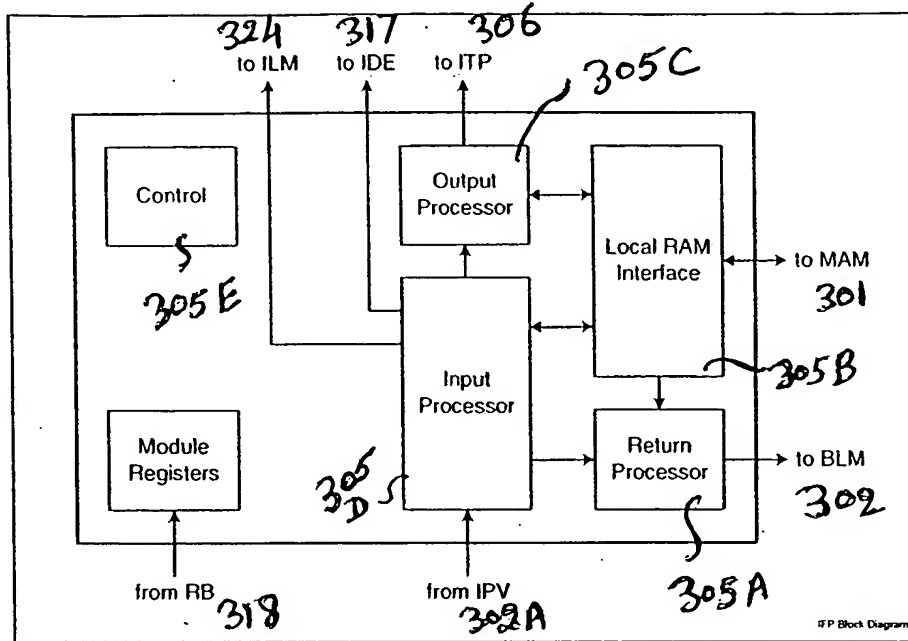


Figure 3L.

305

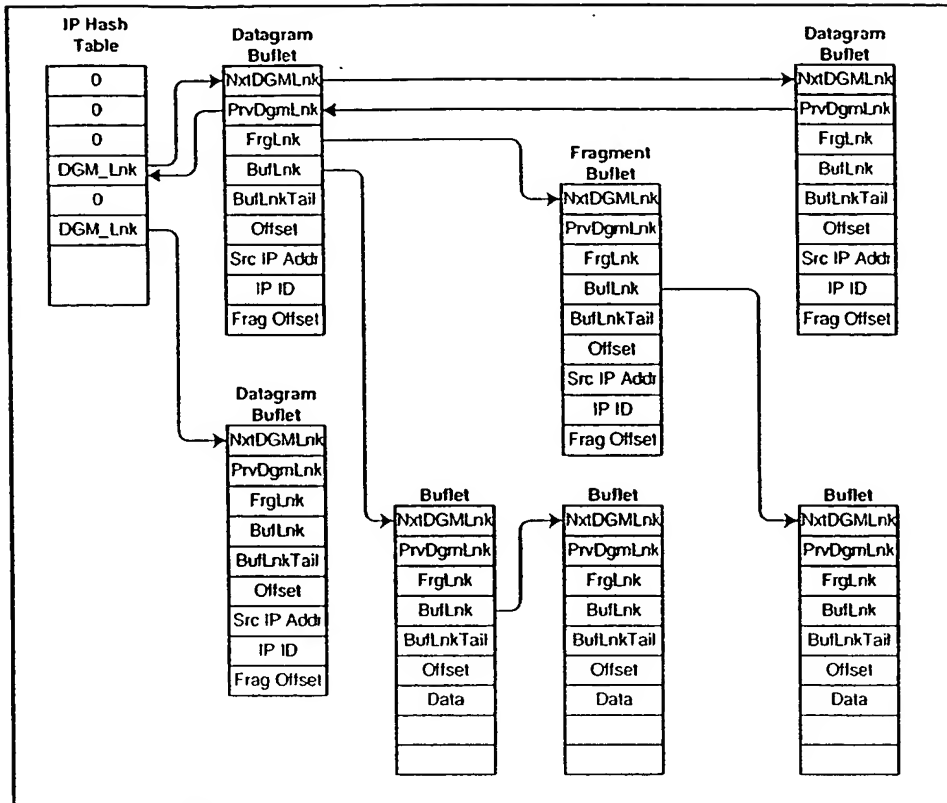


Figure 3L1:

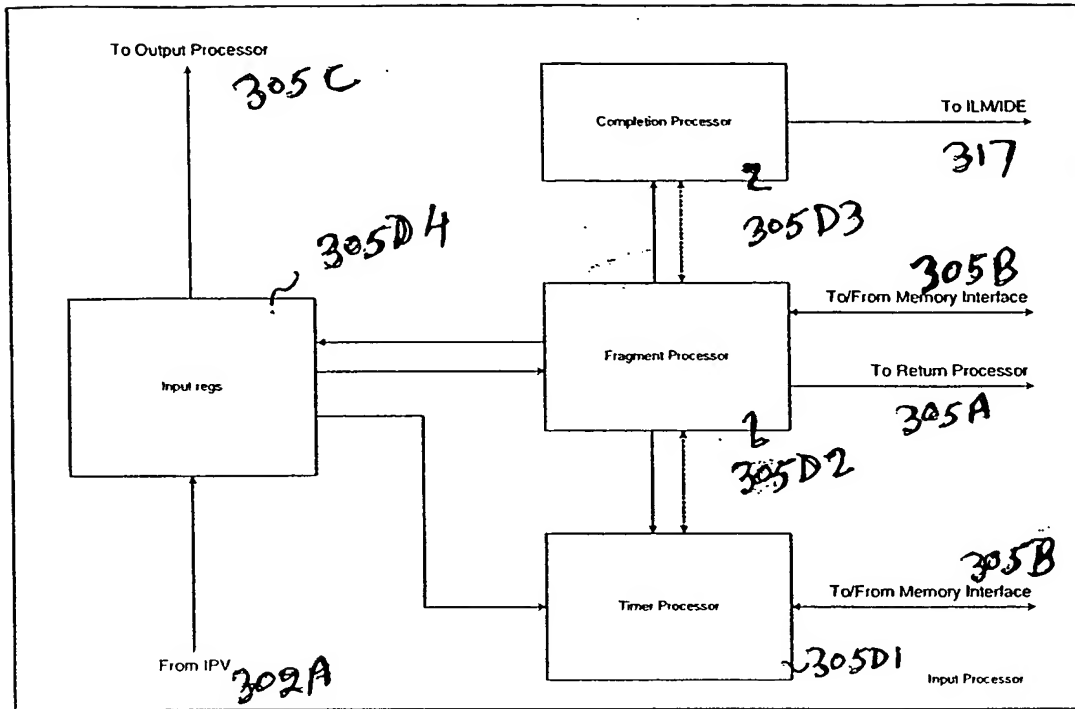


Figure 3L2

305D

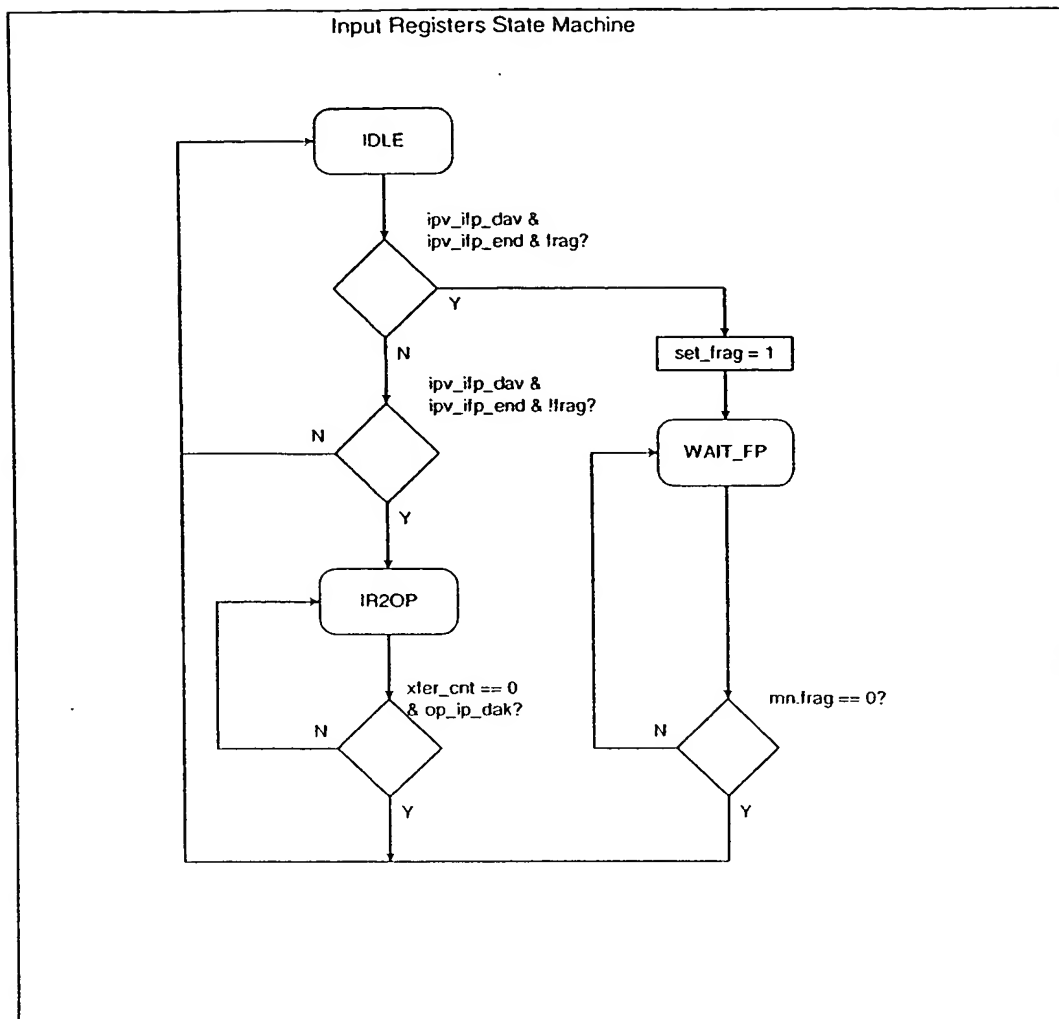


Figure 3L3

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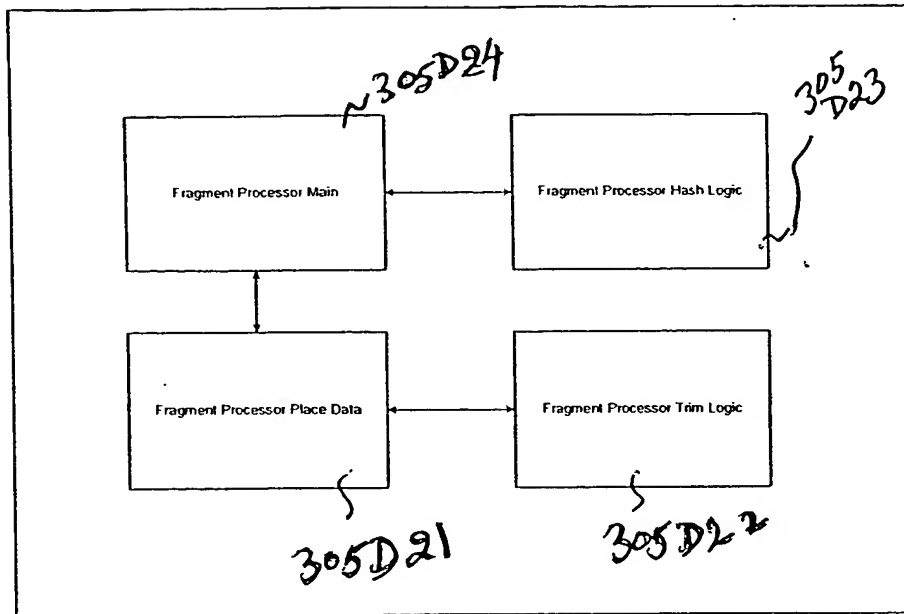


Figure 3L4

305D2

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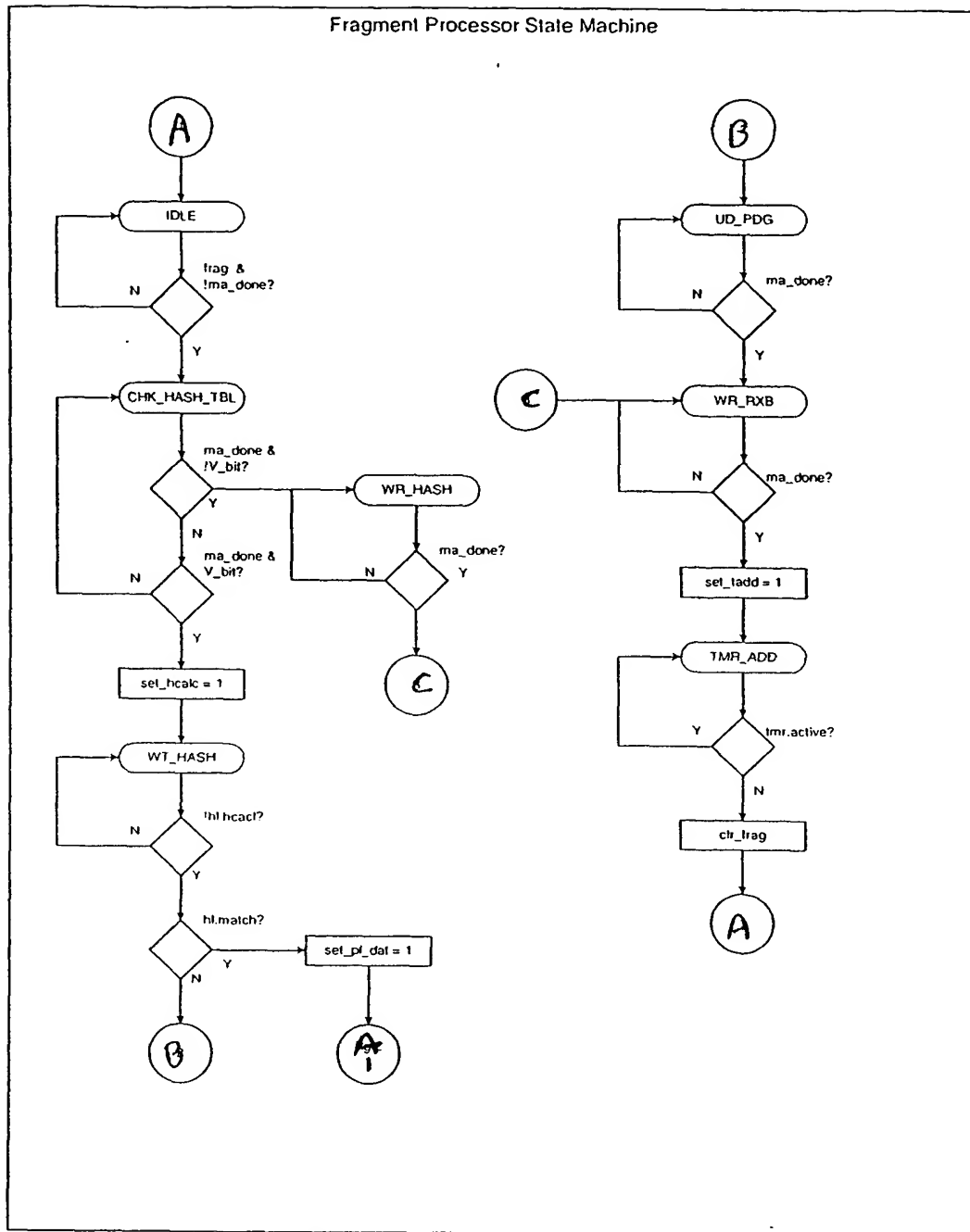


Figure 3L5A I

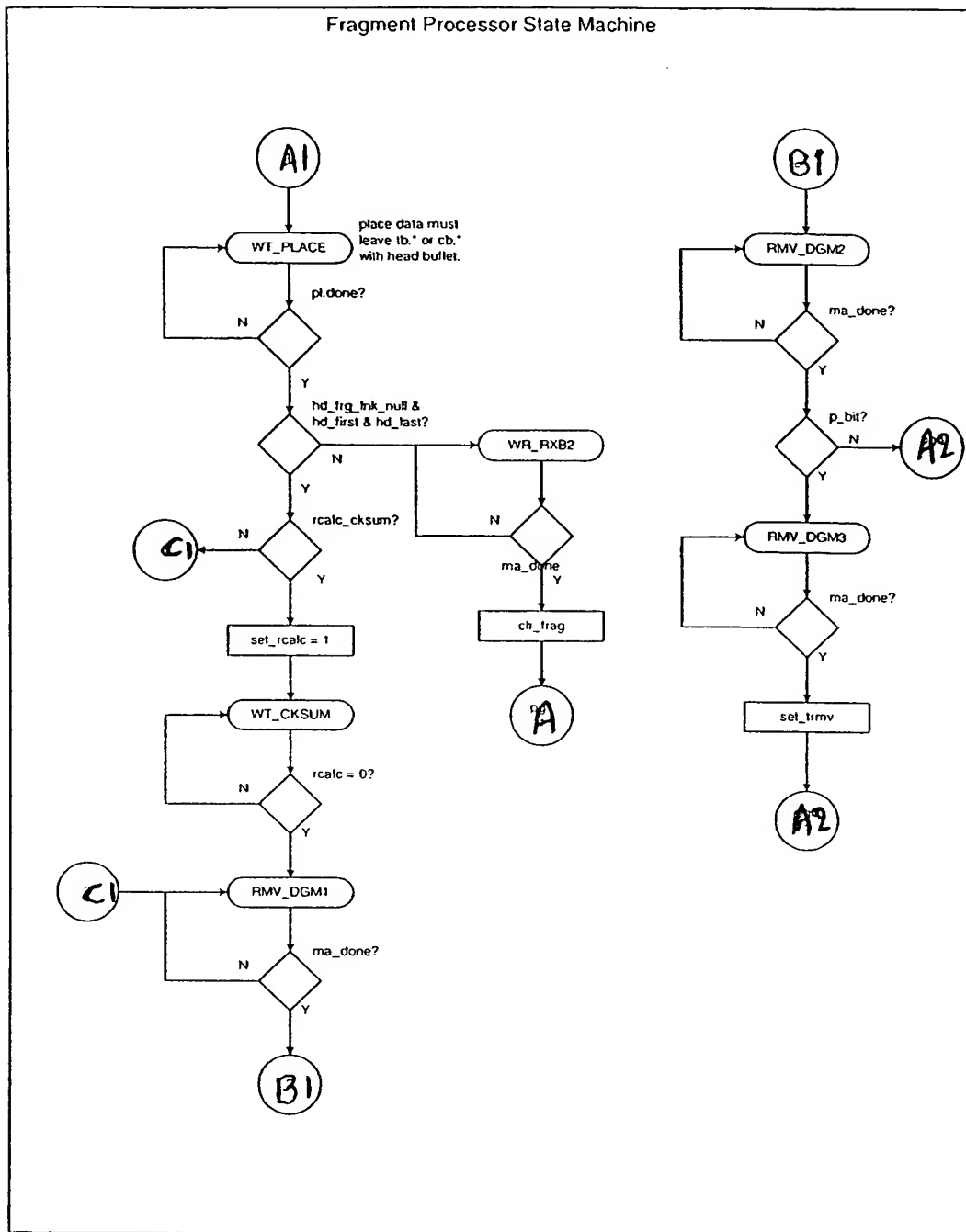


Figure 3L5B F

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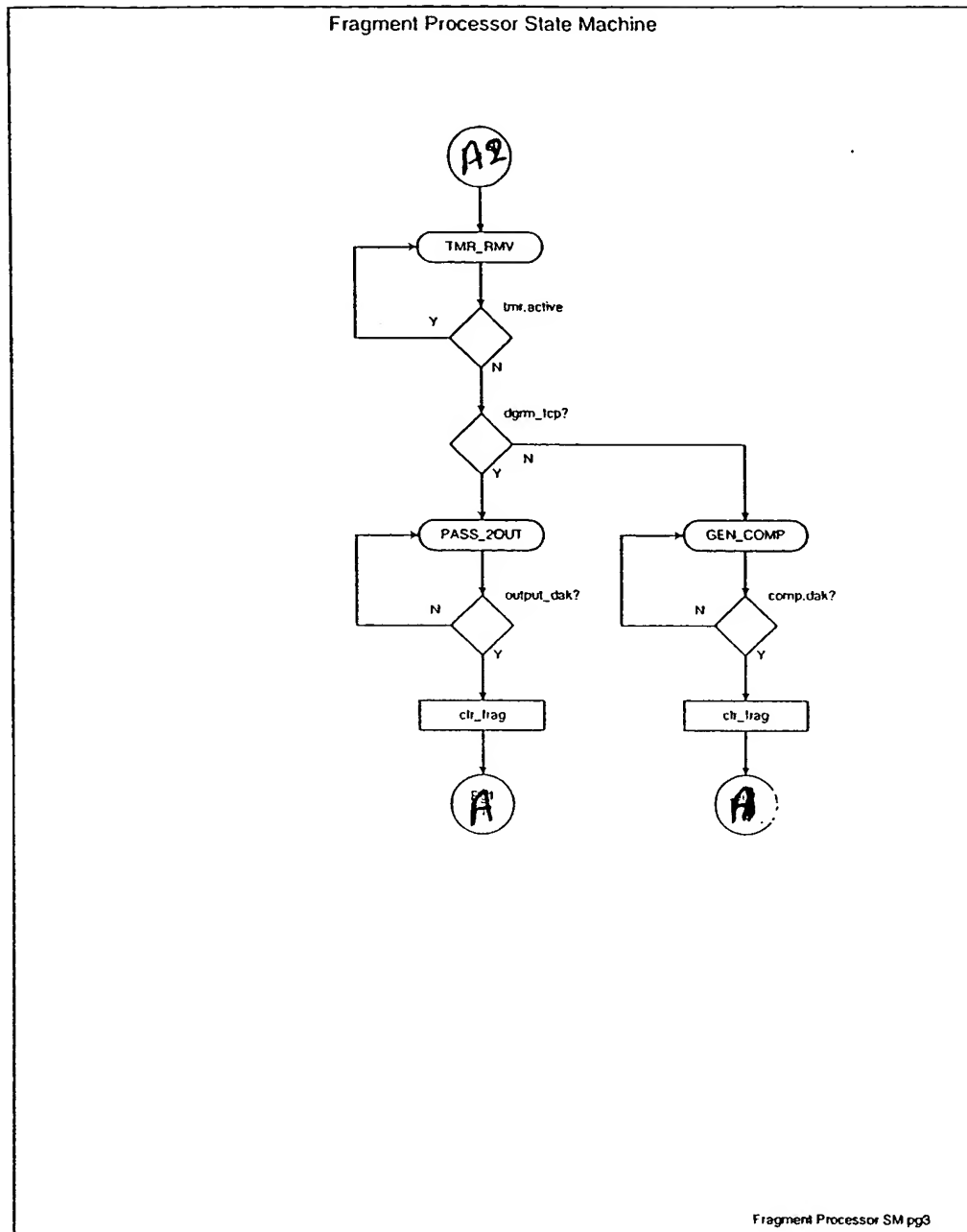


Figure 3L5C

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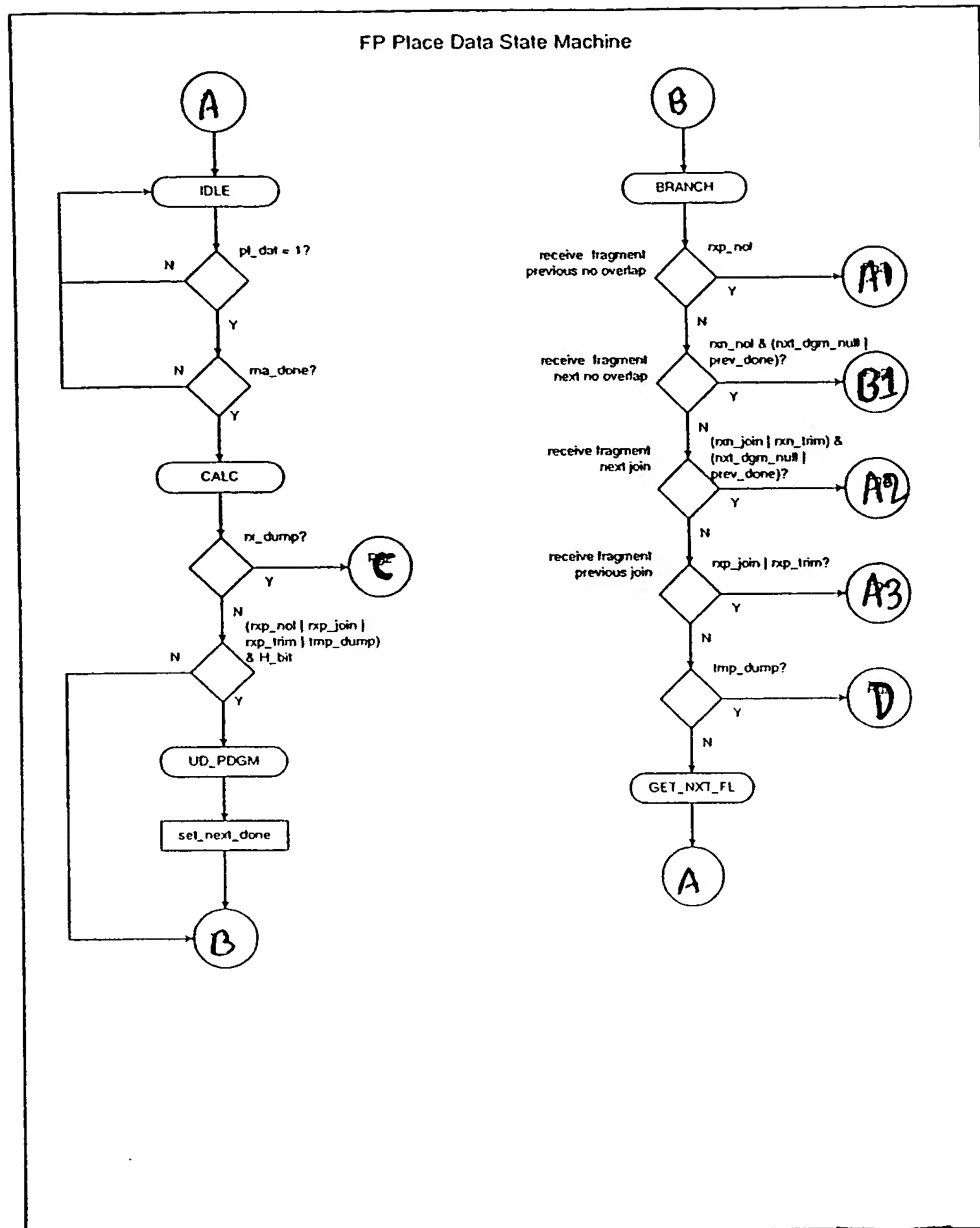


Figure 3L6A

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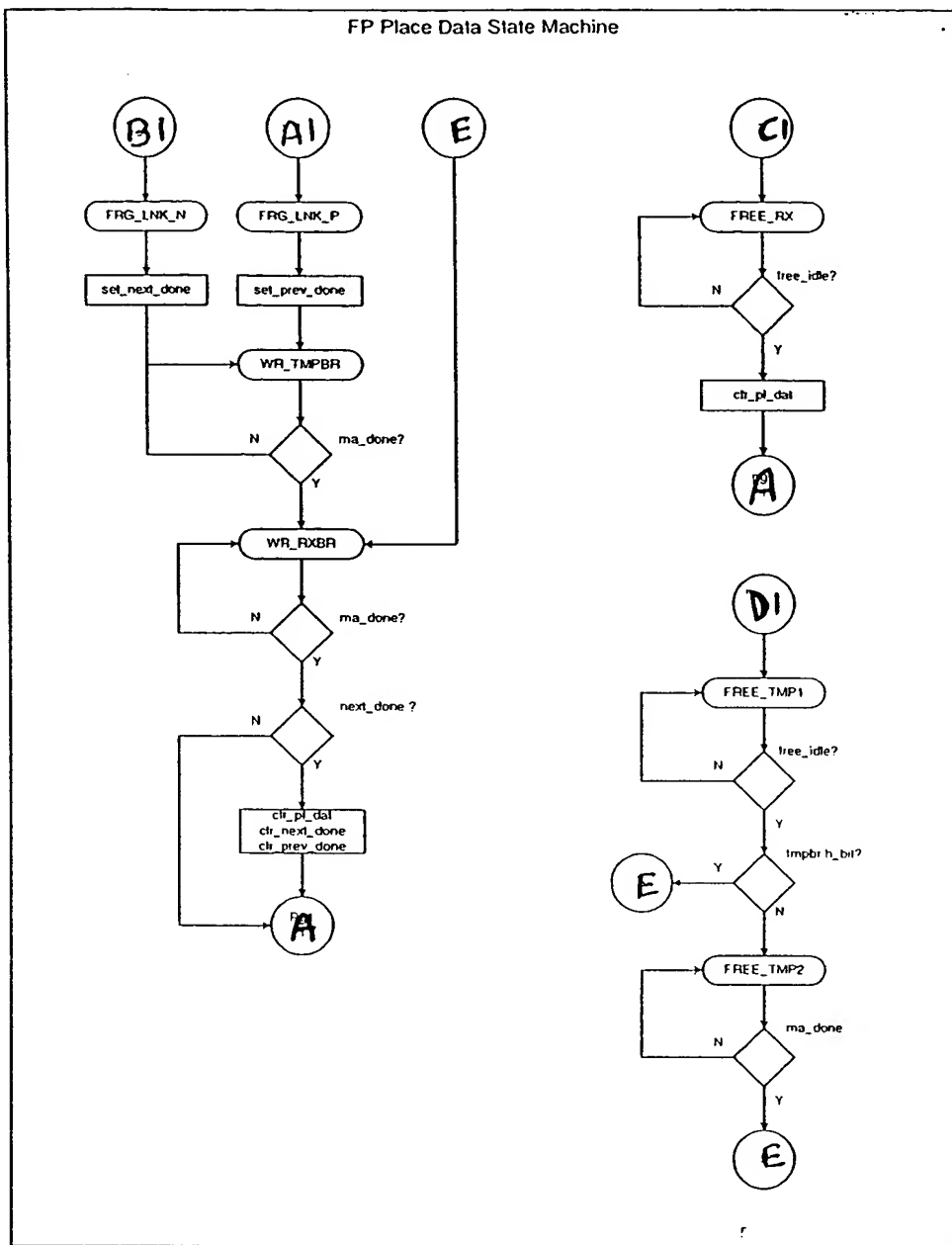


Figure 3L6 B

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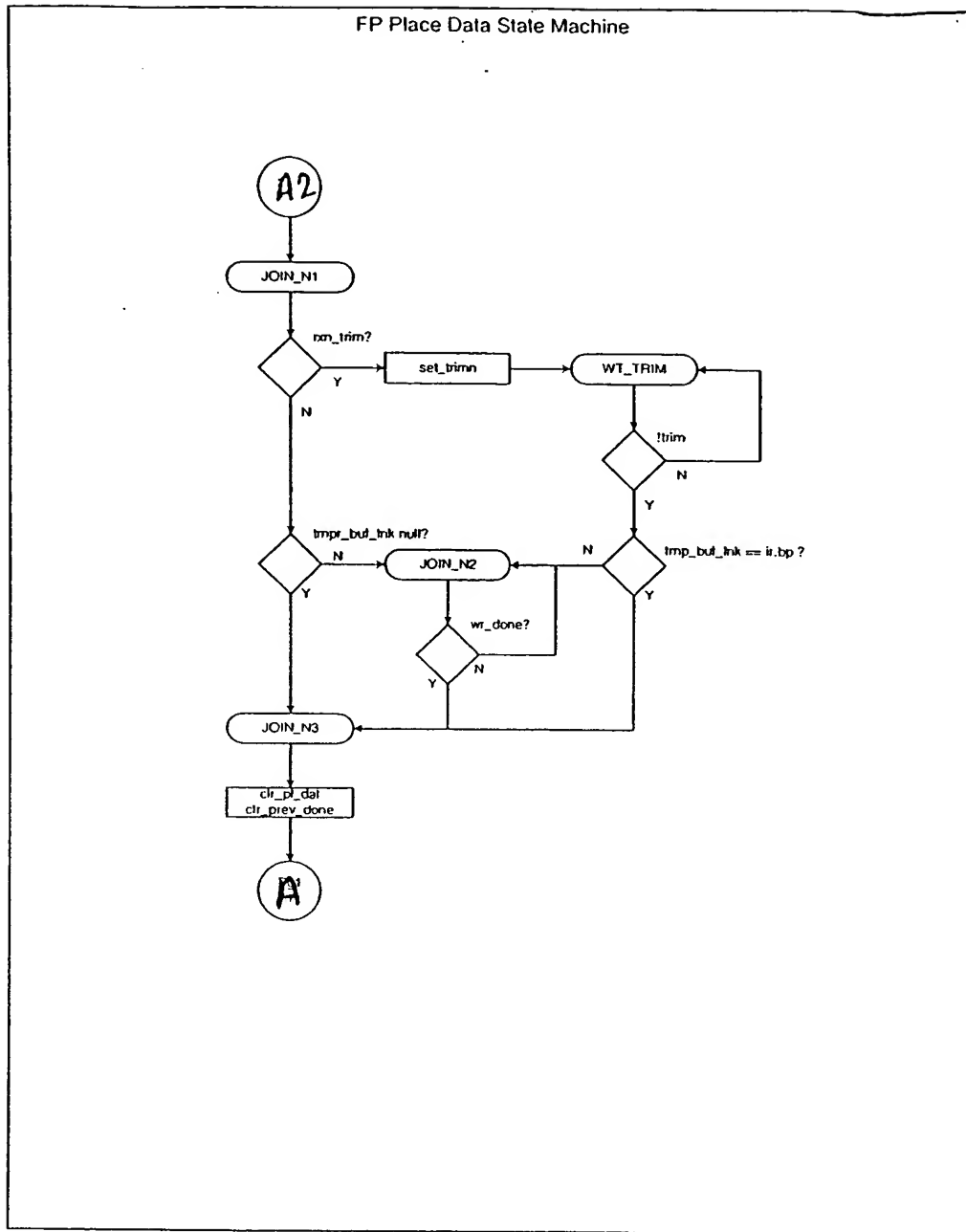


Figure 3L6C

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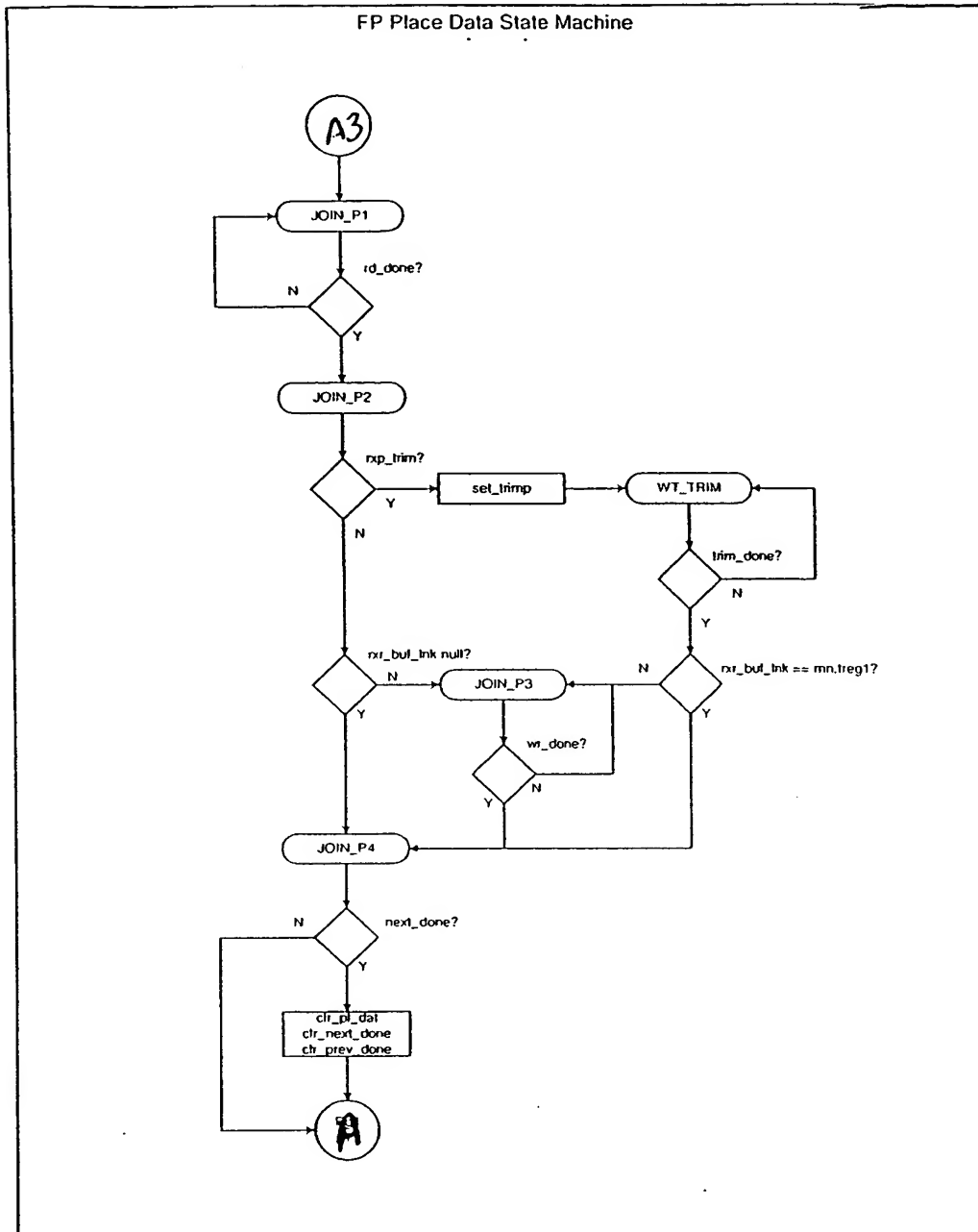


Figure 3L6D

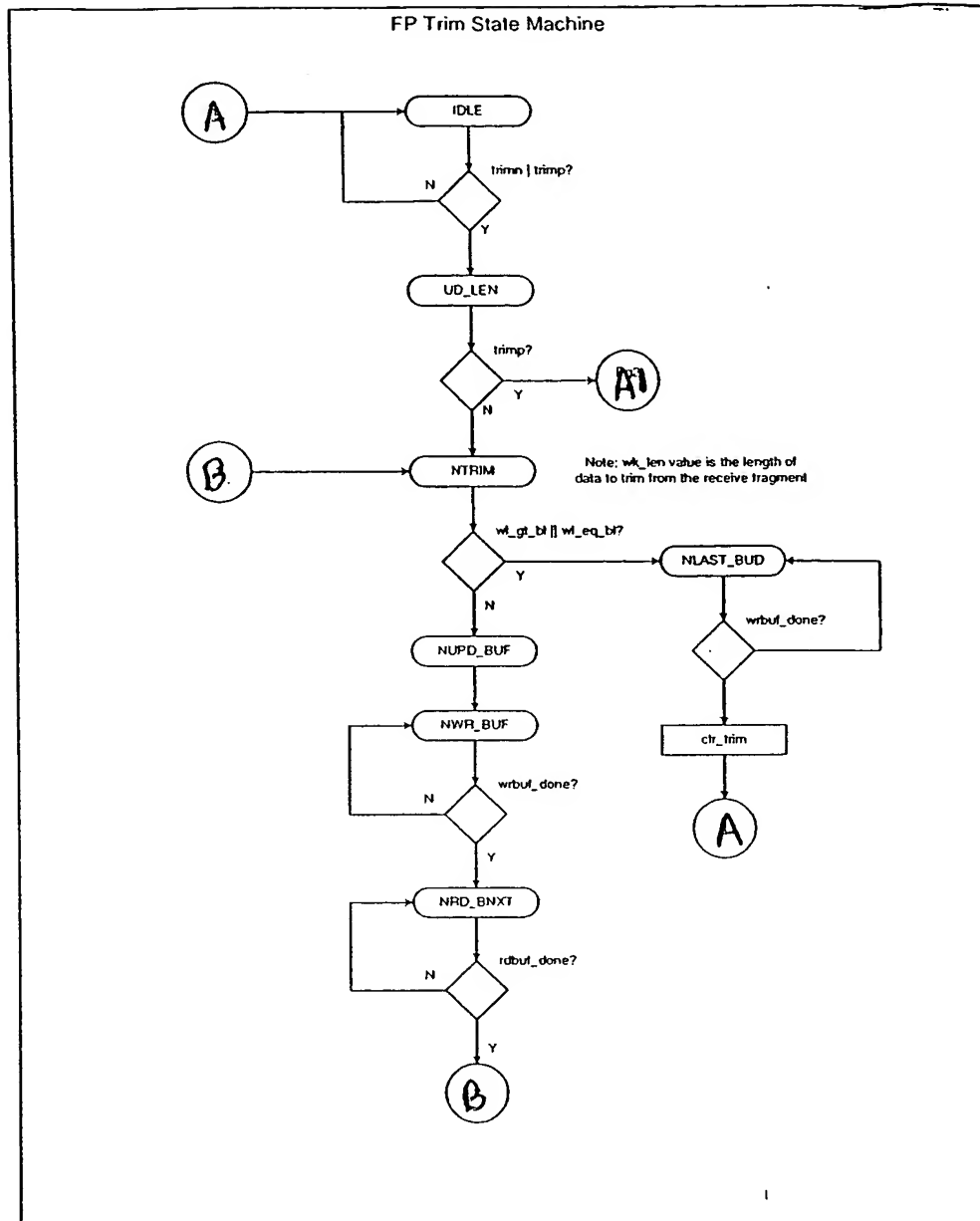


Figure 3L7A

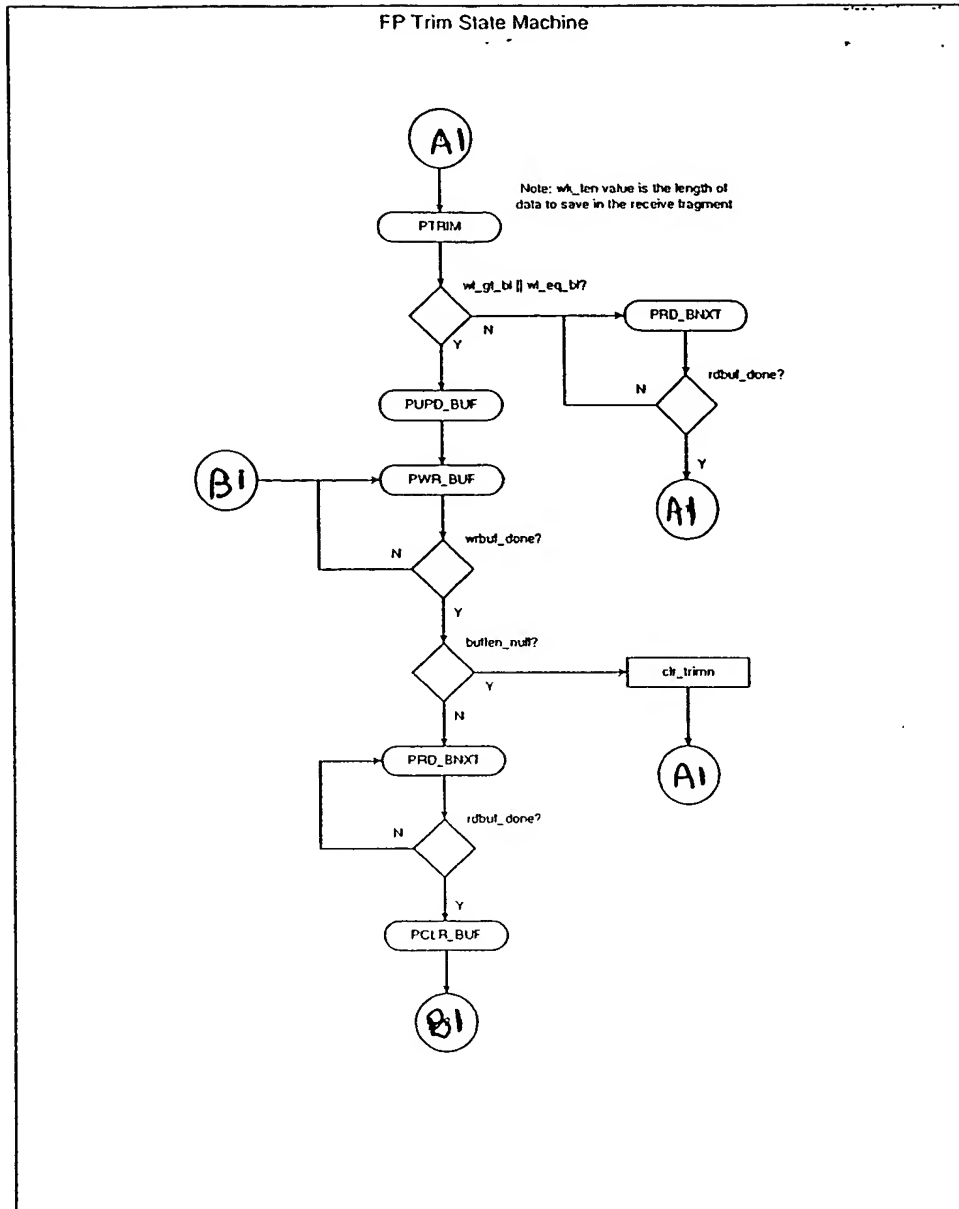


Figure 3L7B:

46 0651

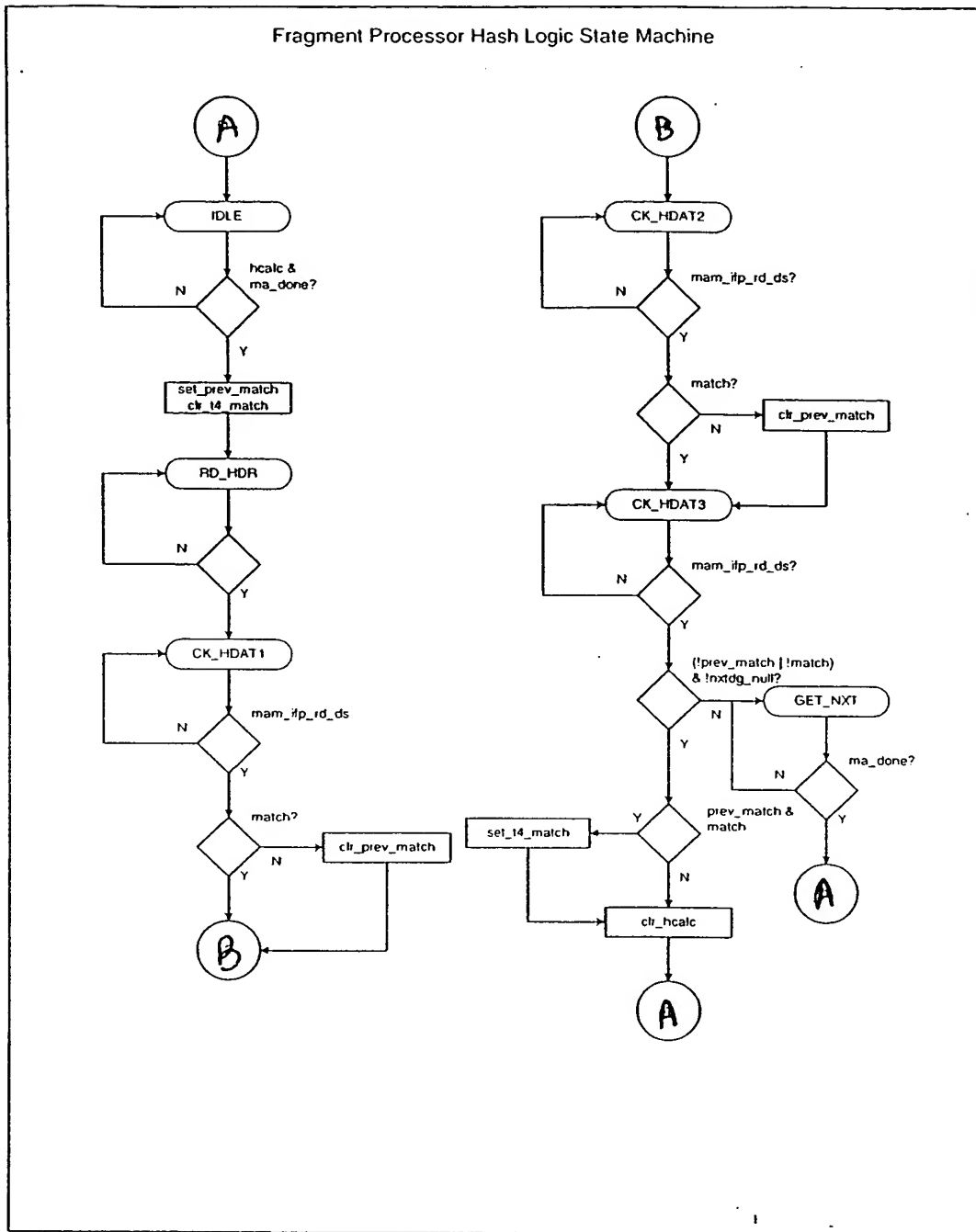


Figure 3L8 I

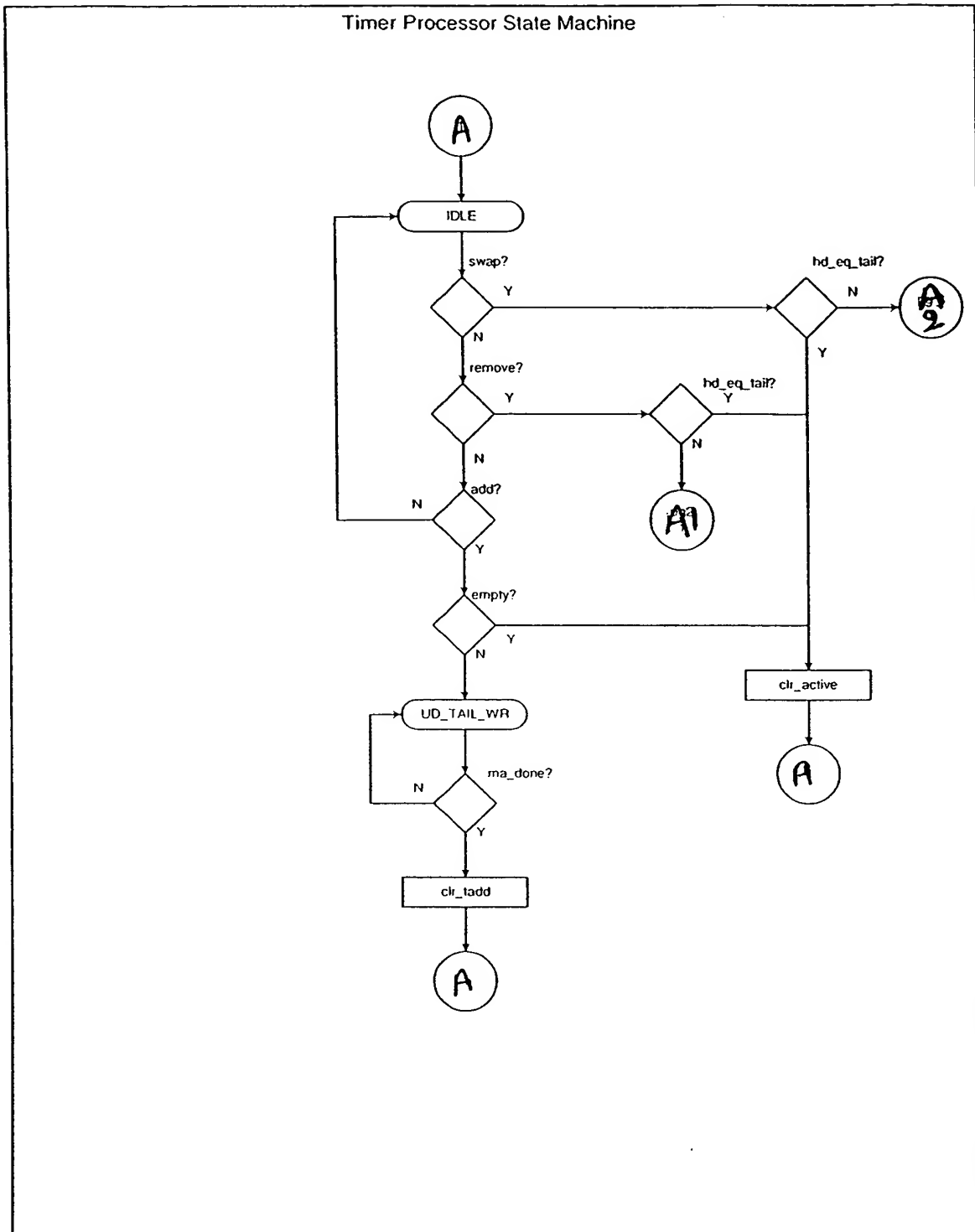


Figure 3L9A

480651

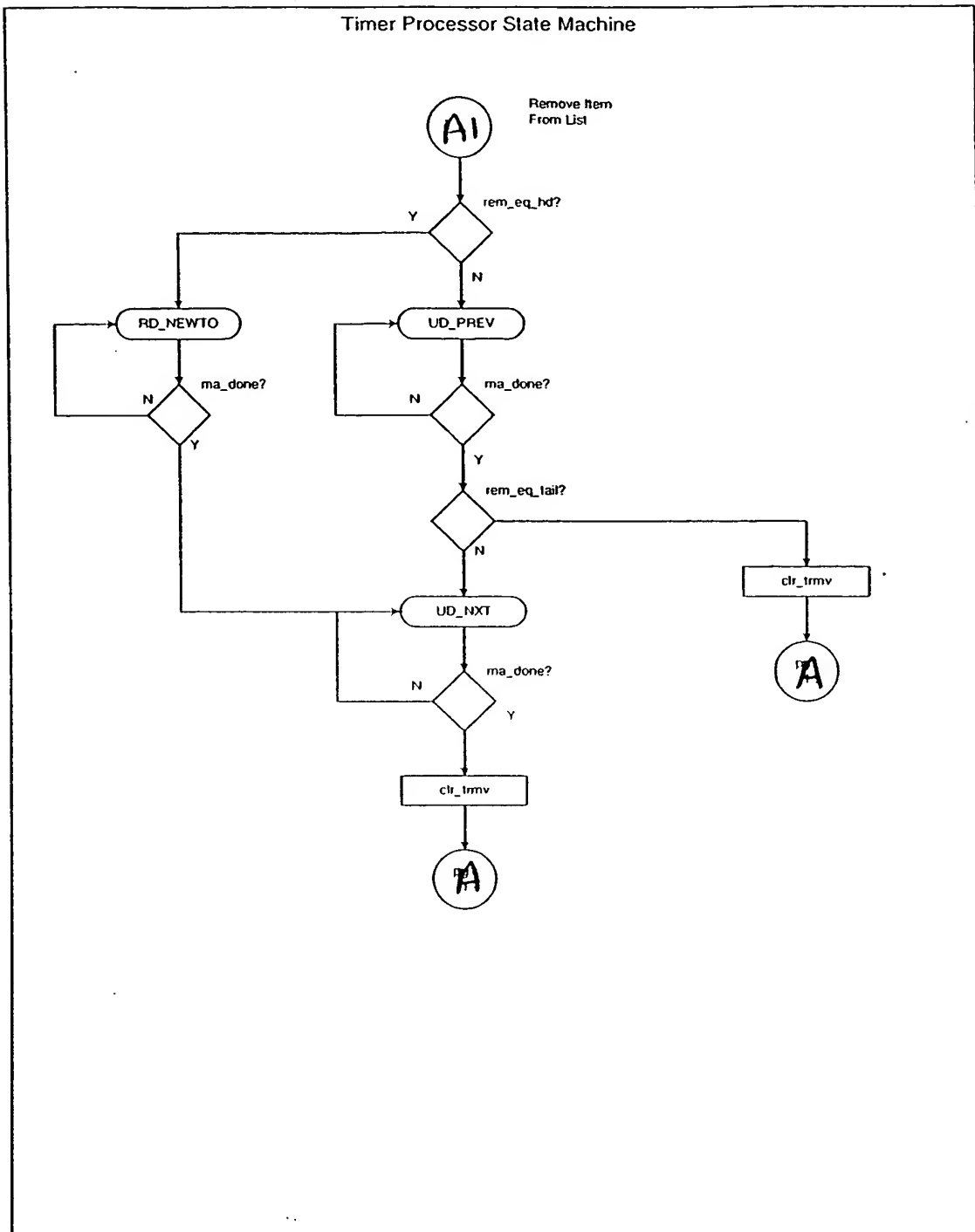


Figure 3L9B:

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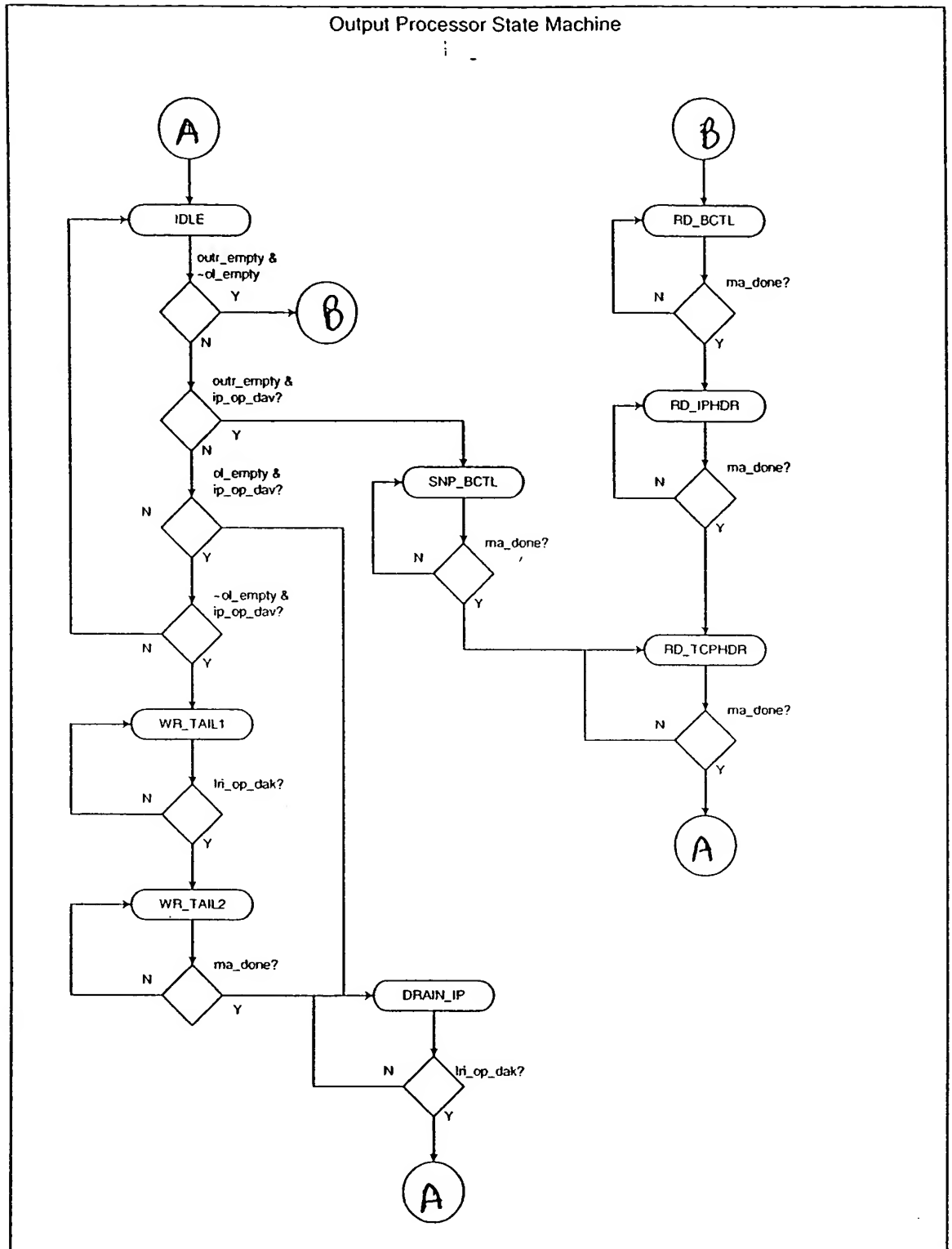


Figure 3L10 -

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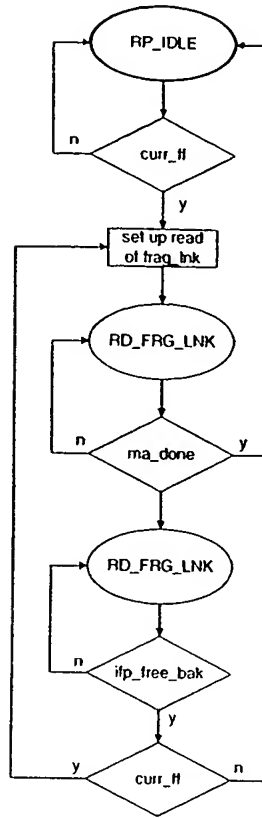


Figure 3L11 - Return Processor State Machine

404

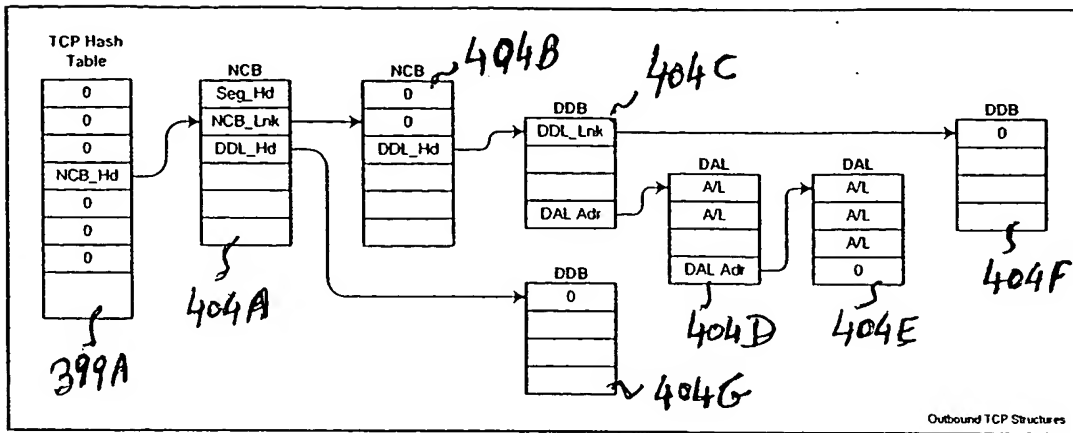


Figure 4A

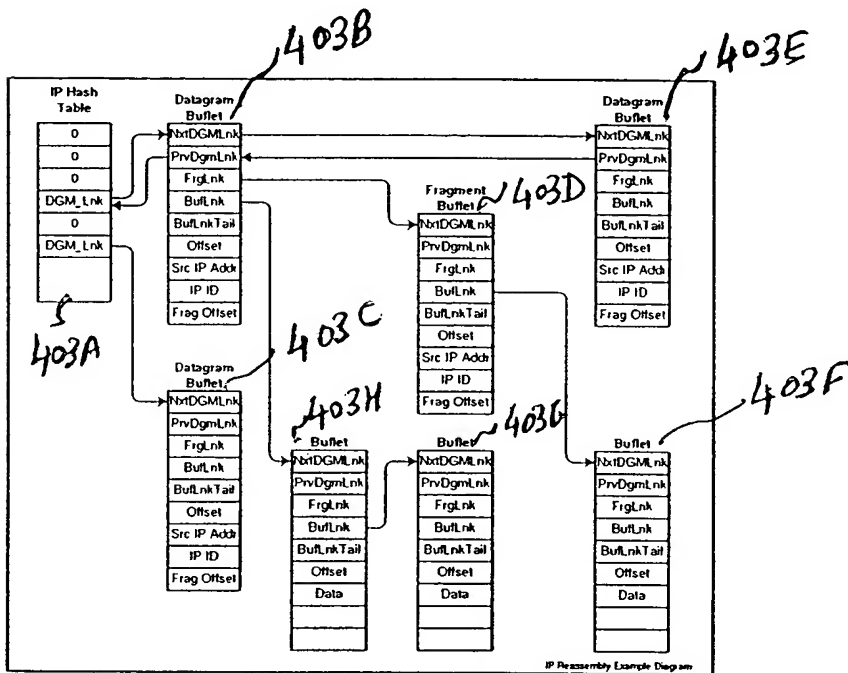


Figure 4B

403